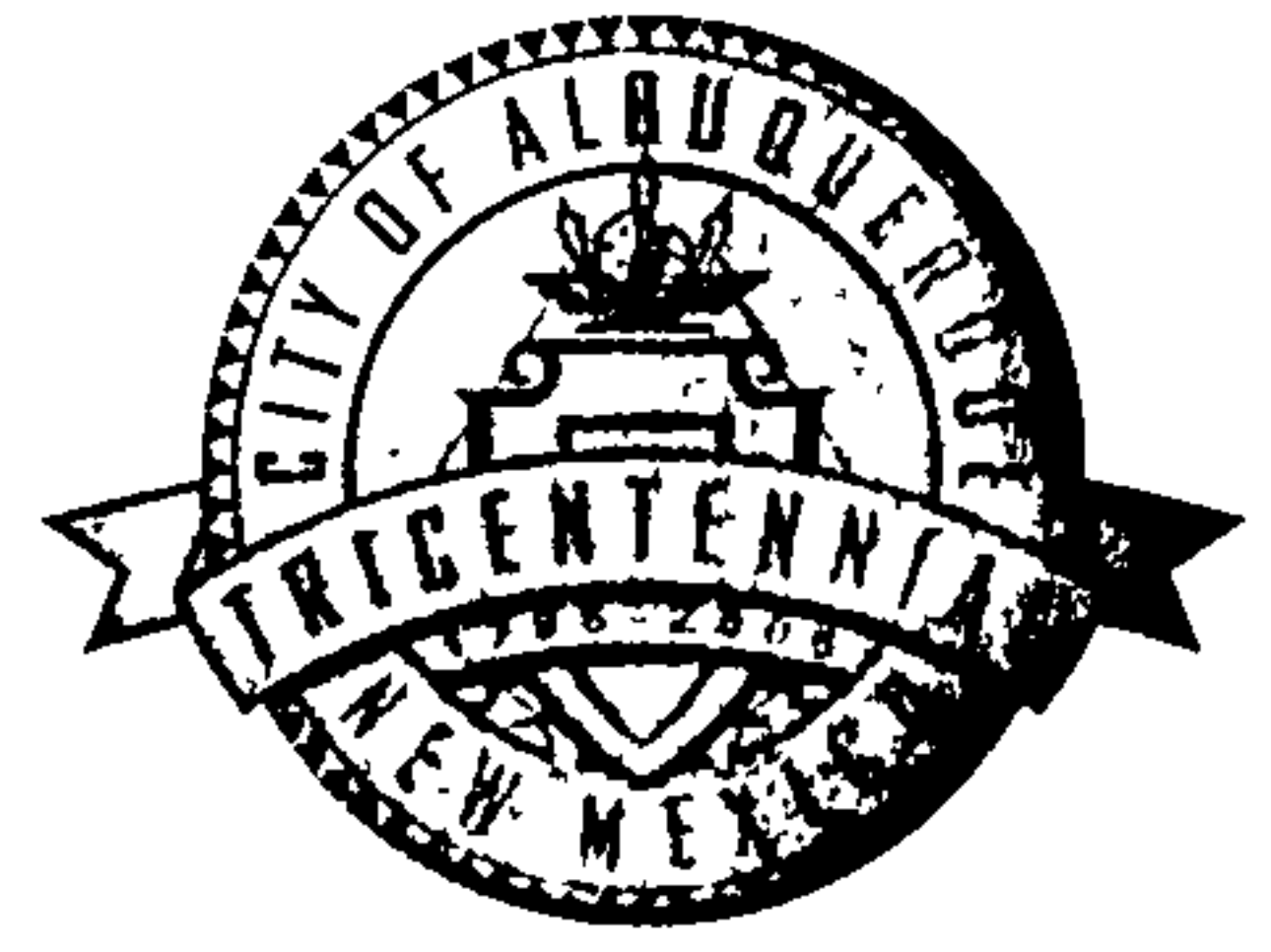


CITY OF ALBUQUERQUE



June 22, 2007

Shahab Biazar, P.E.
Advanced Engineering and Consulting, LLC
4416 Anaheim Ave., NE
Albuquerque, NM 87113

**Re: Renaissance FedX Ground Grading and Drainage Plan
Engineer's Stamp dated 6-4-07 (F16/D022)**

Dear Mr. Biazar,

P.O. Box 1293

Based upon the information provided in your submittal dated 6-5-07, the above referenced plan is approved for Grading Permit and Paving Permit.

Albuquerque

Upon completion of the project, please provide an Engineer Certification for our files.

If you have any questions, you can contact me at 924-3695.

New Mexico 87103

Sincerely,

www.cabq.gov

Curtis A. Cherne, E.I.
Engineering Associate, Planning Dept.
Development and Building Services

C: file

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(Rev. 12/05)

PROJECT TITLE: Federal Express Ground **ZONE ATLAS/DRG. FILE #:** F16 / D22
DRB #: _____ **EPC #:** _____ **WORK ORDER #:** _____

LEGAL DESCRIPTION: 3A3A2A1, Renaissance Center
CITY ADDRESS: 1400 Mission Ave.

ENGINEERING FIRM: Advanced Engineering and Consulting, LLC **CONTACT:** Shahab Biazar
ADDRESS: 4416 Anaheim Ave., NE **PHONE:** (505) 899-5570
CITY, STATE: Albuquerque, New Mexico **ZIP CODE:** 87113

OWNER: _____ **CONTACT:** _____
ADDRESS: _____ **PHONE:** _____
CITY, STATE: _____ **ZIP CODE:** _____

ARCHITECT: _____ **CONTACT:** _____
ADDRESS: _____ **PHONE:** _____
CITY, STATE: _____ **ZIP CODE:** _____

SURVEYOR: _____ **CONTACT:** _____
ADDRESS: _____ **PHONE:** _____
CITY, STATE: _____ **ZIP CODE:** _____

CONTRACTOR: _____ **CONTACT:** _____
ADDRESS: _____ **PHONE:** _____
CITY, STATE: _____ **ZIP CODE:** _____

CHECK TYPE OF SUBMITTAL:

☐ DRAINAGE REPORT
☐ DRAINAGE PLAN 1ST SUBMITTAL
☐ DRAINAGE PLAN RESUBMITTAL
☐ CONCEPTUAL GRADING & DRAINAGE PLAN
☒ GRADING PLAN
☐ EROSION CONTROL PLAN
☐ ENGINEER'S CERTIFICATION (HYDROLOGY)
☐ CLOMR / LOMR
☐ TRAFFIC CIRCULATION LAYOUT (TCL)
☐ ENGINEER/ARCHITECT CERT (TCL)
☐ ENGINEER/ARCHITECT CERT (DRB S.P.)
☐ ENGINEER/ARCHITECT CERT (AA)
☐ OTHER (SPECIFY) _____

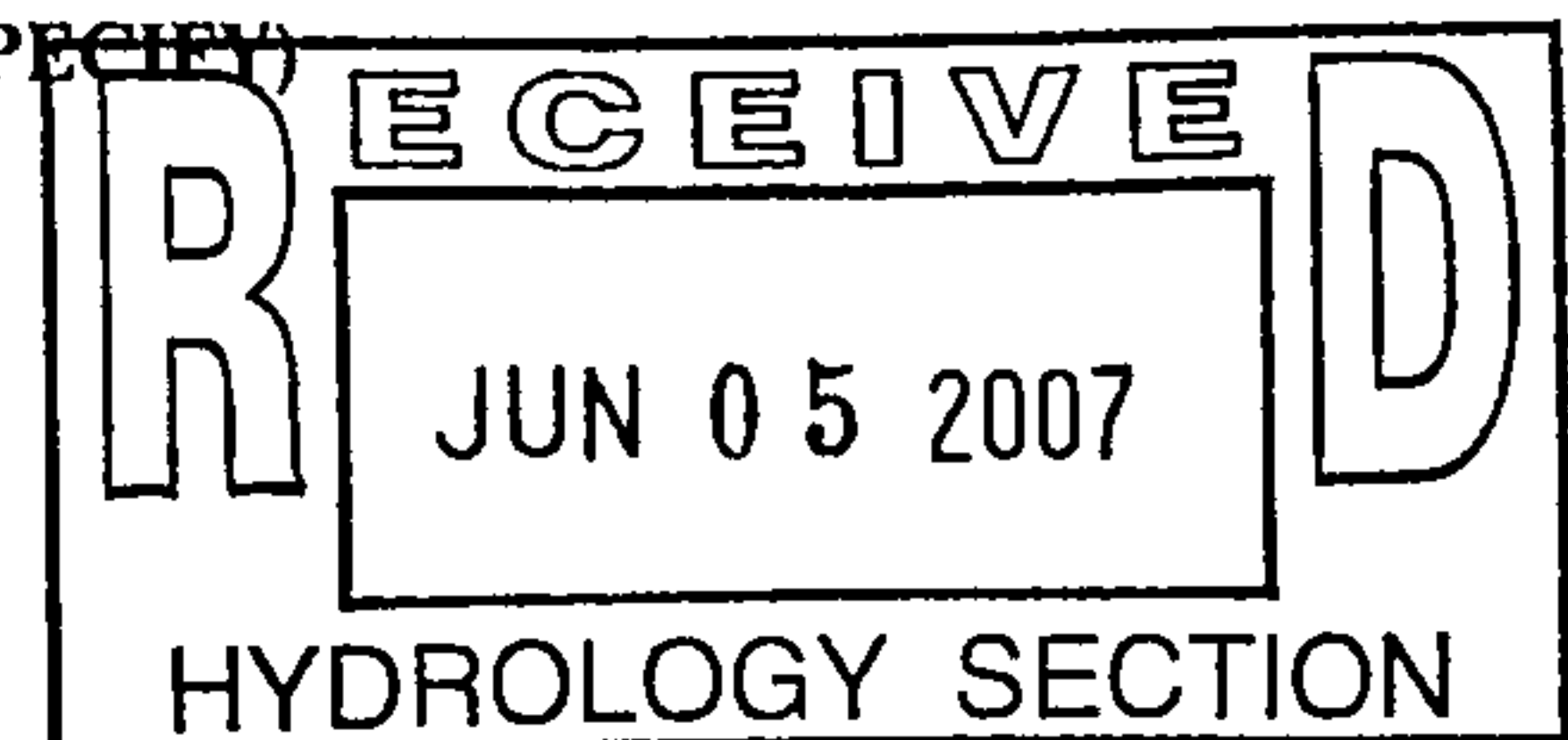
CHECK TYPE OF APPROVAL SOUGHT:

☐ SIA / FINANCIAL GUARANTEE RELEASE
☐ PRELIMINARY PLAT APPROVAL
☒ S. DEV. PLAN FOR SUB'D. APPROVAL
☒ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
☐ SECTOR PLAN APPROVAL
☐ FINAL PLAT APPROVAL
☒ FOUNDATION PERMIT APPROVAL
☒ BUILDING PERMIT APPROVAL
☐ CERTIFICATE OF OCCUPANCY (PERM.)
☐ CERTIFICATE OF OCCUPANCY (TEMP.)
☒ GRADING PERMIT APPROVAL
☒ PAVING PERMIT APPROVAL
☐ WORK ORDER APPROVAL
☐ OTHER (SPECIFY) _____

WAS A PRE-DESIGN CONFERENCE ATTENDED:

☐ YES
☒ NO
☐ COPY PROVIDED

DATE SUBMITTED: 06 / 04 / 2007 **BY:** Shahab Biazar, P.E.



Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope of the proposed development defines the degree of drainage detail. One or more of the following levels of submittals may be required based on the following:

- 1. Conceptual Grading and Drainage Plan:** Required for approval of Site Development Plans greater than five (5) and Sector Plans.
- 2. Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5).
- 3. Drainage Report:** Required for subdivisions containing more than ten (10) lots or containing five (5) acres or more.

ONE STOP SHOP
CITY OF ALBUQUERQUE PLANNING DEPARTMENT
Development & Building Services

PAID RECEIPT

APPLICANT NAME _____

AGENT _____

ADDRESS _____

PROJECT & APP # _____

PROJECT NAME _____

ADVANCED ENGINEERING & CONSULTING

4416 ANAHEIM AVENUE

FEDERAL EXPRESS GROUND

\$ _____ 441032/3424000 Conflict Management Fee

\$ _____ 441006/4983000 DRB Actions

\$ _____ 441006/4971000 EPC/AA/LUCC Actions & All Appeals

\$ _____ 441018/4971000 Public Notification

\$ 50.00 441006/4983000 DRAINAGE PLAN REVIEW OR TRAFFIC IMPACT STUDY***
() Major/Minor Subdivision () Site Development Plan () Bldg Permit
() Letter of Map Revision () Conditional Letter of Map Revision
() Traffic Impact Study

\$ 50.00 TOTAL AMOUNT DUE

***NOTE: If a subsequent submittal is required, bring a copy of this paid receipt with you to avoid an additional charge.

DUPLICATE
City Of Albuquerque
Treasury Division

6/5/2007 1:34PM LOC: ANNX
RECEIPT# 00077611 WSH 006 TRANSH 0032
Account 441006 Fund 0110
Activity 4983000 TRSCC3
Trans Amt \$50.00
J24 Misc \$50.00
CK \$50.00
CHANGE \$0.00

VOLUME CALCULATIONS

DETENTION POND

Ab - Bottom Of The Pond Surface Area

At - Top Of The Pond Surface Area

D - Water Depth

Dt - Total Pond Depth

C - Change In Surface Area / Water Depth

$$\text{Volume} = \text{Ab} * \text{D} + 0.5 * \text{C} * \text{D}^2$$

$$\text{C} = (\text{At} - \text{Ab}) / \text{Dt}$$

ACTUAL ELEV.	DEPTH (FT)	VOLUME (AC-FT)	Q (CFS)
36.09	0	0.00000	0.0000
38.05	1.95	0.00027	0.1993
40.00	3.91	0.00054	0.2856
40.25	4.16	0.09839	0.2948
40.50	4.41	0.19936	0.3037
40.75	4.66	0.30342	0.3124
41.00	4.91	0.41060	0.3208
41.25	5.16	0.52630	0.3291
41.50	5.41	0.65594	0.3371
41.75	5.66	0.79953	0.3449
42.00	5.91	0.95705	0.3526

Bottom of Inlet

Top of Inlet

Ab = 16,779.58 @ ELEV. 5,040

At = 18,945.04 @ ELEV. 5,041

Dt = 1.00

C = 2,165.46

Ab = 18,945.04 @ ELEV. 5,041

At = 28,661.94 @ ELEV. 5,042

Dt = 1.00

C = 9,716.90

Orifice Equation

$$Q = \text{CA} \sqrt{2gH}$$

C = 0.6

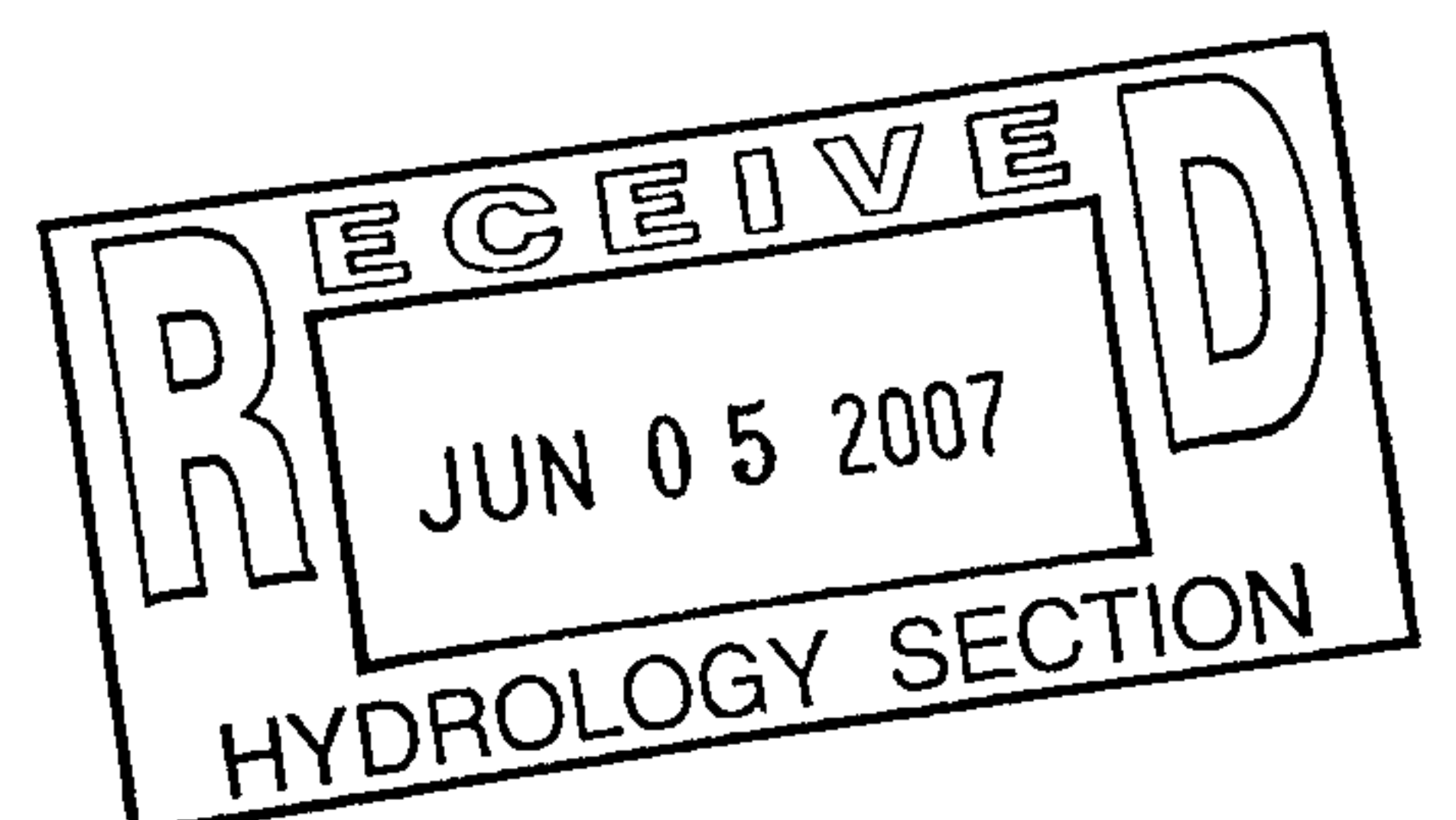
Diameter (in) = 2.36

Area (ft²) = 0.0304

g = 32.2

H (Ft) = Depth of water above center of orifice

Q (CFS) = Flow



AHYMO INPUT FILE

(PONDING CONDITIONS)

* ZONE 2

* 100-YEAR, 6-HR STORM (UNDER PROPOSED CONDITIONS) *

START TIME=0.0
RAINFALL TYPE=2 RAIN QUARTER=0.0 IN
RAIN ONE=2.01 IN RAIN SIX=2.35 IN
RAIN DAY=2.75 IN DT=0.03333 HR

* ON-STIE

COMPUTE NM HYD ID=10 HYD NO=112.0 AREA=0.009171 SQ MI
PER A=0.00 PER B=13.00 PER C=13.00 PER D=74.00
TP=0.1333 HR MASS RAINFALL=-1

* PONDING CONDITION *

ROUTE RESERVOIR	ID=30 HYD NO=501.1 INFLOW ID=10 CODE=24		
	OUTFLOW(CFS)	STORAGE(AC-FT)	ELEVATION(FT)
	0.0000	0.00000	5136.09
	0.1993	0.00027	5138.05
	0.2856	0.00054	5140.00
	0.2948	0.09839	5140.25
	0.3037	0.19936	5140.50
	0.3124	0.30342	5140.75
	0.3208	0.41060	5141.00
	0.3291	0.52630	5141.25
	0.3371	0.65594	5141.50
	0.3449	0.79953	5141.75
	0.3526	0.95705	5142.00

*

FINISH

SUMMARY OUTPUT FILE (PONDING CONDITIONS)

AHYMO PROGRAM SUMMARY TABLE (AHYMO_97) -
INPUT FILE = 721p-24

- VERSION: 1997.02d

RUN DATE (MON/DAY/YR) =06/04/2007
USER NO.= AHYMO-I-9702c01000R31-AH .

[illegible]

AHYMO OUTPUT FILE (PONDING CONDITIONS)

AHYMO PROGRAM (AHYMO 97) -

- Version: 1997.02d

RUN DATE (MON/DAY/YR) = 06/04/2007

START TIME (HR:MIN:SEC) = 09:56:44

USER NO.= AHYMO-I-9702c01000R31-AH

INPUT FILE = 721p-24

* ZONE 2

* 100-YEAR, 6-HR STORM (UNDER PROPOSED CONDITIONS) *

START TIME=0.0

RAINFALL TYPE=2 RAIN QUARTER=0.0 IN

RAIN ONE=2.01 IN RAIN SIX=2.35 IN

RAIN DAY=2.75 IN DT=0.03333 HR

COMPUTED 24-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40 HR.

DT = .033330 HOURS END TIME = 19.964670 HOURS

.0000	.0016	.0033	.0049	.0066	.0084	.0102
.0120	.0139	.0158	.0178	.0199	.0219	.0241
.0263	.0286	.0309	.0333	.0358	.0384	.0411
.0439	.0467	.0497	.0529	.0561	.0596	.0631
.0669	.0709	.0751	.0807	.0866	.0930	.1066
.1371	.1840	.2514	.3434	.4644	.6186	.8106
1.0449	1.2624	1.3533	1.4300	1.4982	1.5602	1.6174
1.6704	1.7200	1.7664	1.8102	1.8514	1.8904	1.9273
1.9622	1.9953	2.0268	2.0566	2.0850	2.0915	2.0976
2.1033	2.1088	2.1140	2.1191	2.1239	2.1285	2.1329
2.1373	2.1414	2.1454	2.1494	2.1531	2.1568	2.1604
2.1639	2.1673	2.1706	2.1739	2.1771	2.1802	2.1832
2.1862	2.1891	2.1919	2.1947	2.1975	2.2002	2.2028
2.2054	2.2080	2.2105	2.2130	2.2154	2.2178	2.2202
2.2225	2.2248	2.2270	2.2293	2.2315	2.2336	2.2358
2.2379	2.2399	2.2420	2.2440	2.2460	2.2480	2.2500
2.2519	2.2538	2.2557	2.2576	2.2594	2.2612	2.2631
2.2648	2.2666	2.2684	2.2701	2.2718	2.2735	2.2752
2.2769	2.2785	2.2802	2.2818	2.2834	2.2850	2.2866
2.2881	2.2897	2.2912	2.2928	2.2943	2.2958	2.2973
2.2987	2.3002	2.3017	2.3031	2.3045	2.3060	2.3074
2.3088	2.3102	2.3115	2.3129	2.3143	2.3156	2.3169
2.3183	2.3196	2.3209	2.3222	2.3235	2.3248	2.3261
2.3273	2.3286	2.3298	2.3311	2.3323	2.3335	2.3348
2.3360	2.3372	2.3384	2.3396	2.3408	2.3419	2.3431
2.3443	2.3454	2.3466	2.3477	2.3488	2.3500	2.3511
2.3523	2.3534	2.3546	2.3557	2.3568	2.3580	2.3591
2.3602	2.3613	2.3625	2.3636	2.3647	2.3658	2.3669
2.3680	2.3691	2.3702	2.3713	2.3724	2.3735	2.3746
2.3757	2.3768	2.3779	2.3790	2.3801	2.3811	2.3822
2.3833	2.3844	2.3854	2.3865	2.3876	2.3886	2.3897
2.3907	2.3918	2.3928	2.3939	2.3949	2.3960	2.3970
2.3981	2.3991	2.4001	2.4012	2.4022	2.4032	2.4043
2.4053	2.4063	2.4073	2.4083	2.4094	2.4104	2.4114
2.4124	2.4134	2.4144	2.4154	2.4164	2.4174	2.4184
2.4194	2.4204	2.4214	2.4224	2.4233	2.4243	2.4253
2.4263	2.4273	2.4282	2.4292	2.4302	2.4312	2.4321
2.4331	2.4341	2.4350	2.4360	2.4369	2.4379	2.4388
2.4398	2.4408	2.4417	2.4426	2.4436	2.4445	2.4455
2.4464	2.4474	2.4483	2.4492	2.4502	2.4511	2.4520
2.4529	2.4539	2.4548	2.4557	2.4566	2.4575	2.4585
2.4594	2.4603	2.4612	2.4621	2.4630	2.4639	2.4648
2.4657	2.4666	2.4675	2.4684	2.4693	2.4702	2.4711
2.4720	2.4729	2.4738	2.4747	2.4756	2.4764	2.4773
2.4782	2.4791	2.4799	2.4808	2.4817	2.4826	2.4834
2.4843	2.4852	2.4860	2.4869	2.4878	2.4886	2.4895
2.4903	2.4912	2.4921	2.4929	2.4938	2.4946	2.4955
2.4963	2.4971	2.4980	2.4988	2.4997	2.5005	2.5014
2.5022	2.5030	2.5039	2.5047	2.5055	2.5064	2.5072

2.5080	2.5088	2.5097	2.5105	2.5113	2.5121	2.5129
2.5138	2.5146	2.5154	2.5162	2.5170	2.5178	2.5186
2.5194	2.5203	2.5211	2.5219	2.5227	2.5235	2.5243
2.5251	2.5259	2.5267	2.5274	2.5282	2.5290	2.5298
2.5306	2.5314	2.5322	2.5330	2.5338	2.5345	2.5353
2.5361	2.5369	2.5377	2.5384	2.5392	2.5400	2.5408
2.5415	2.5423	2.5431	2.5438	2.5446	2.5454	2.5461
2.5469	2.5477	2.5484	2.5492	2.5500	2.5507	2.5515
2.5522	2.5530	2.5537	2.5545	2.5552	2.5560	2.5567
2.5575	2.5582	2.5590	2.5597	2.5605	2.5612	2.5619
2.5627	2.5634	2.5642	2.5649	2.5656	2.5664	2.5671
2.5678	2.5686	2.5693	2.5700	2.5707	2.5715	2.5722
2.5729	2.5736	2.5744	2.5751	2.5758	2.5765	2.5773
2.5780	2.5787	2.5794	2.5801	2.5808	2.5815	2.5823
2.5830	2.5837	2.5844	2.5851	2.5858	2.5865	2.5872
2.5879	2.5886	2.5893	2.5900	2.5907	2.5914	2.5921
2.5928	2.5935	2.5942	2.5949	2.5956	2.5963	2.5970
2.5976	2.5983	2.5990	2.5997	2.6004	2.6011	2.6018
2.6024	2.6031	2.6038	2.6045	2.6052	2.6058	2.6065
2.6072	2.6079	2.6085	2.6092	2.6099	2.6106	2.6112
2.6119	2.6126	2.6132	2.6139	2.6146	2.6152	2.6159
2.6166	2.6172	2.6179	2.6186	2.6192	2.6199	2.6205
2.6212	2.6219	2.6225	2.6232	2.6238	2.6245	2.6251
2.6258	2.6264	2.6271	2.6277	2.6284	2.6290	2.6297
2.6303	2.6310	2.6316	2.6322	2.6329	2.6335	2.6342
2.6348	2.6355	2.6361	2.6367	2.6374	2.6380	2.6386
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2.6437	2.6443	2.6449	2.6456	2.6462	2.6468	2.6474
2.6481	2.6487	2.6493	2.6499	2.6506	2.6512	2.6518
2.6524	2.6530	2.6536	2.6543	2.6549	2.6555	2.6561
2.6567	2.6573	2.6579	2.6586	2.6592	2.6598	2.6604
2.6610	2.6616	2.6622	2.6628	2.6634	2.6640	2.6646
2.6652	2.6658	2.6664	2.6670	2.6676	2.6682	2.6688
2.6694	2.6700	2.6706	2.6712	2.6718	2.6724	2.6730
2.6736	2.6742	2.6748	2.6754	2.6760	2.6765	2.6771
2.6777	2.6783	2.6789	2.6795	2.6801	2.6807	2.6812
2.6818	2.6824	2.6830	2.6836	2.6841		

* ON-STIE

COMPUTE NM HYD

ID=10 HYD NO=112.0 AREA=0.009171 SQ MI
 PER A=0.00 PER B=13.00 PER C=13.00 PER D=74.00
 TP=0.1333 HR MASS RAINFALL=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
 UNIT PEAK = 26.794 CFS UNIT VOLUME = .9989 B = 526.28 P60 = 2.0100
 AREA = .006787 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

K = .119767HR TP = .133300HR K/TP RATIO = .898476 SHAPE CONSTANT, N = 3.944947
 UNIT PEAK = 6.2873 CFS UNIT VOLUME = .9983 B = 351.48 P60 = 2.0100
 AREA = .002384 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

 * PONDING CONDITION *

ROUTE RESERVOIR	ID=30 HYD NO=501.1	INFLOW ID=10 CODE=24
	OUTFLOW(CFS)	STORAGE(AC-FT) ELEVATION(FT)
	0.0000	0.00000 5136.09
	0.1993	0.00027 5138.05
	0.2856	0.00054 5140.00
	0.2948	0.09839 5140.25
	0.3037	0.19936 5140.50
	0.3124	0.30342 5140.75
	0.3208	0.41060 5141.00
	0.3291	0.52630 5141.25
	0.3371	0.65594 5141.50
	0.3449	0.79953 5141.75
	0.3526	0.95705 5142.00

* * * * *

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	5136.09	.000	.00
.80	.00	5136.09	.000	.00
1.60	17.20	5141.02	.418	.32
2.40	.99	5141.73	.791	.34
3.20	.20	5141.75	.797	.34
4.00	.12	5141.72	.784	.34
4.80	.12	5141.70	.769	.34
5.60	.13	5141.67	.755	.34
6.40	.15	5141.65	.741	.34
7.20	.14	5141.63	.728	.34
8.00	.13	5141.60	.715	.34
8.80	.13	5141.58	.701	.34
9.60	.12	5141.55	.687	.34
10.40	.12	5141.53	.672	.34
11.20	.11	5141.50	.657	.34
12.00	.11	5141.47	.642	.34
12.80	.10	5141.44	.627	.34
13.60	.10	5141.41	.611	.33
14.40	.10	5141.38	.596	.33
15.20	.09	5141.35	.580	.33
16.00	.09	5141.32	.564	.33
16.80	.09	5141.29	.548	.33
17.60	.08	5141.26	.532	.33
18.40	.08	5141.23	.515	.33
19.20	.08	5141.19	.499	.33

PEAK DISCHARGE = .345 CFS - PEAK OCCURS AT HOUR 2.83
MAXIMUM WATER SURFACE ELEVATION = 5141.751
MAXIMUM STORAGE = .8000 AC-FT INCREMENTAL TIME= .033330HRS

*
FINISH

NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) = 09:56:44

Submitted For Information Only
From City Drainage # F16/D22

See Sheet 5
of This Report

REVISED
DRAINAGE REPORT

for

**Federal Express-Ground
Tract 3A-3A-1,2
Renaissance Center
Albuquerque, New Mexico**

Prepared by

Tierra West, LLC
8509 Jefferson Blvd NE
Albuquerque, New Mexico 87113

Prepared for
Mr. Bob Gude
4600 Madison, Suite 725
Kansas MO 64112



May 2002

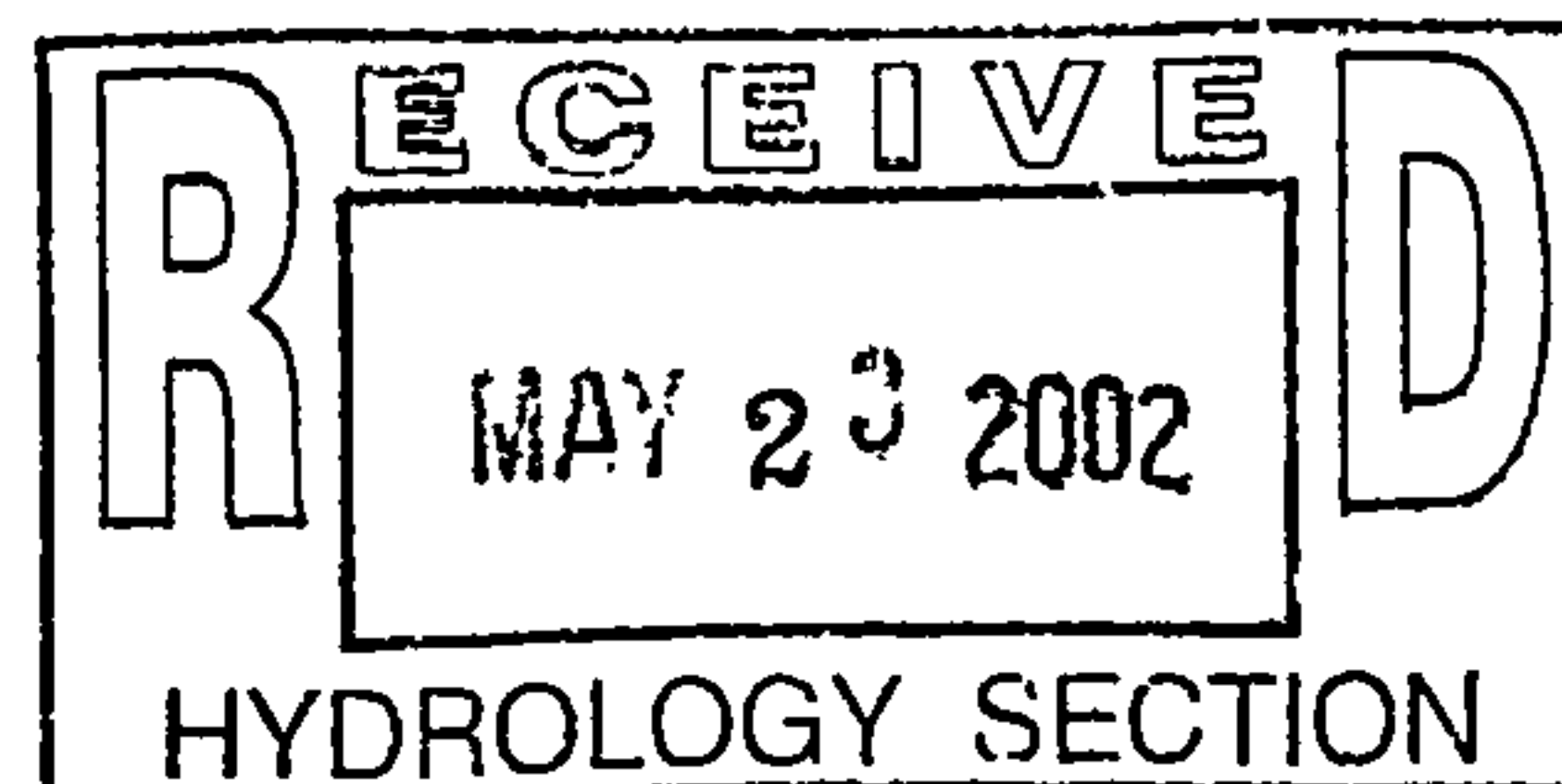
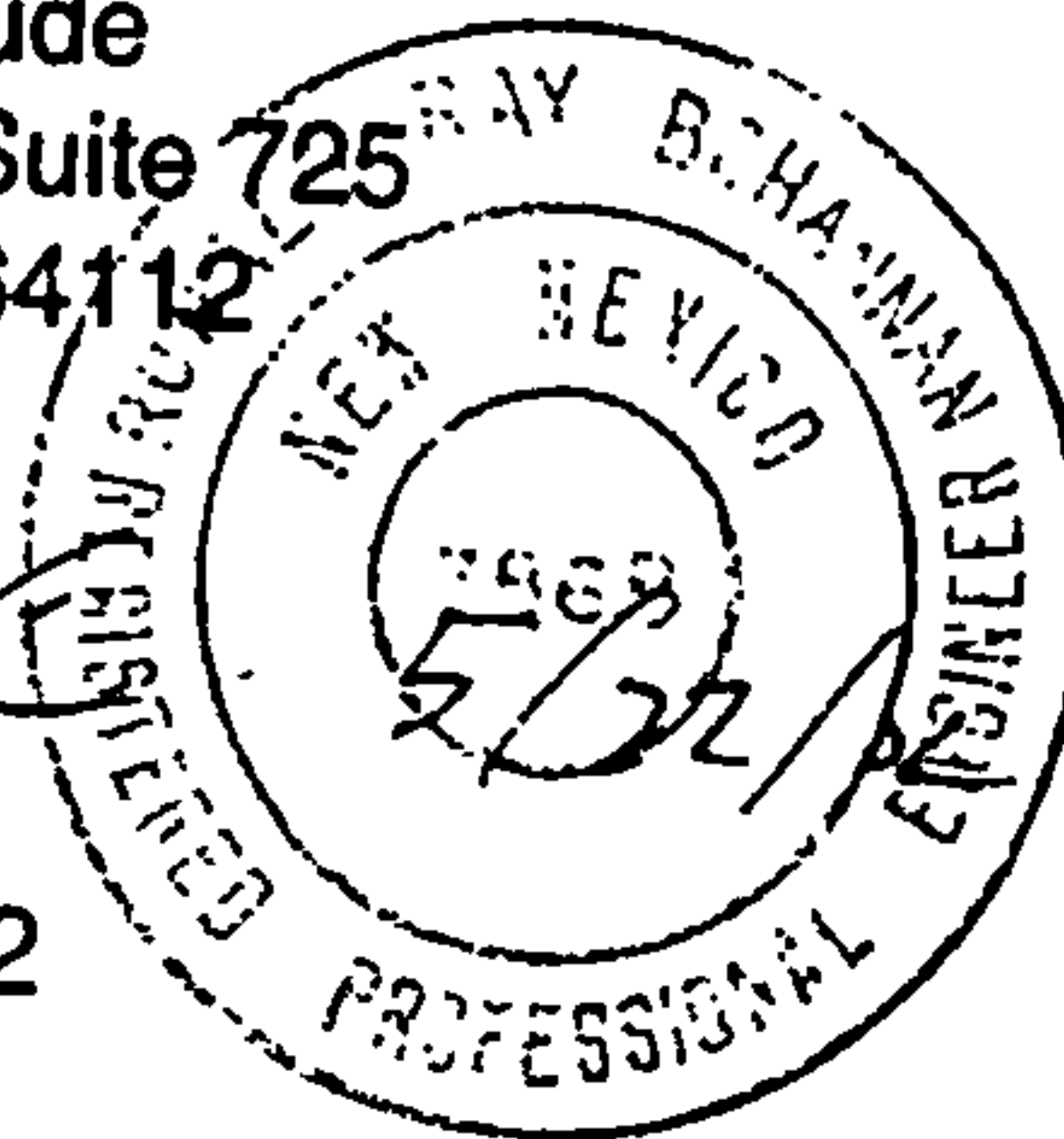


TABLE OF CONTENTS

Purpose..... 3

Introduction 3

Vicinity Map..... 4

Existing Conditions 5

Proposed Conditions 5

Onsite Basin Map..... 6

Summary..... 7

Appendix

Site Hydrology.....A

Hydraulic Analysis.....B

Map Pocket

Adjacent Properties Grading PlansA

Overall Tract 3 Drainage Basin MapB

Grading and Drainage Plan.....C

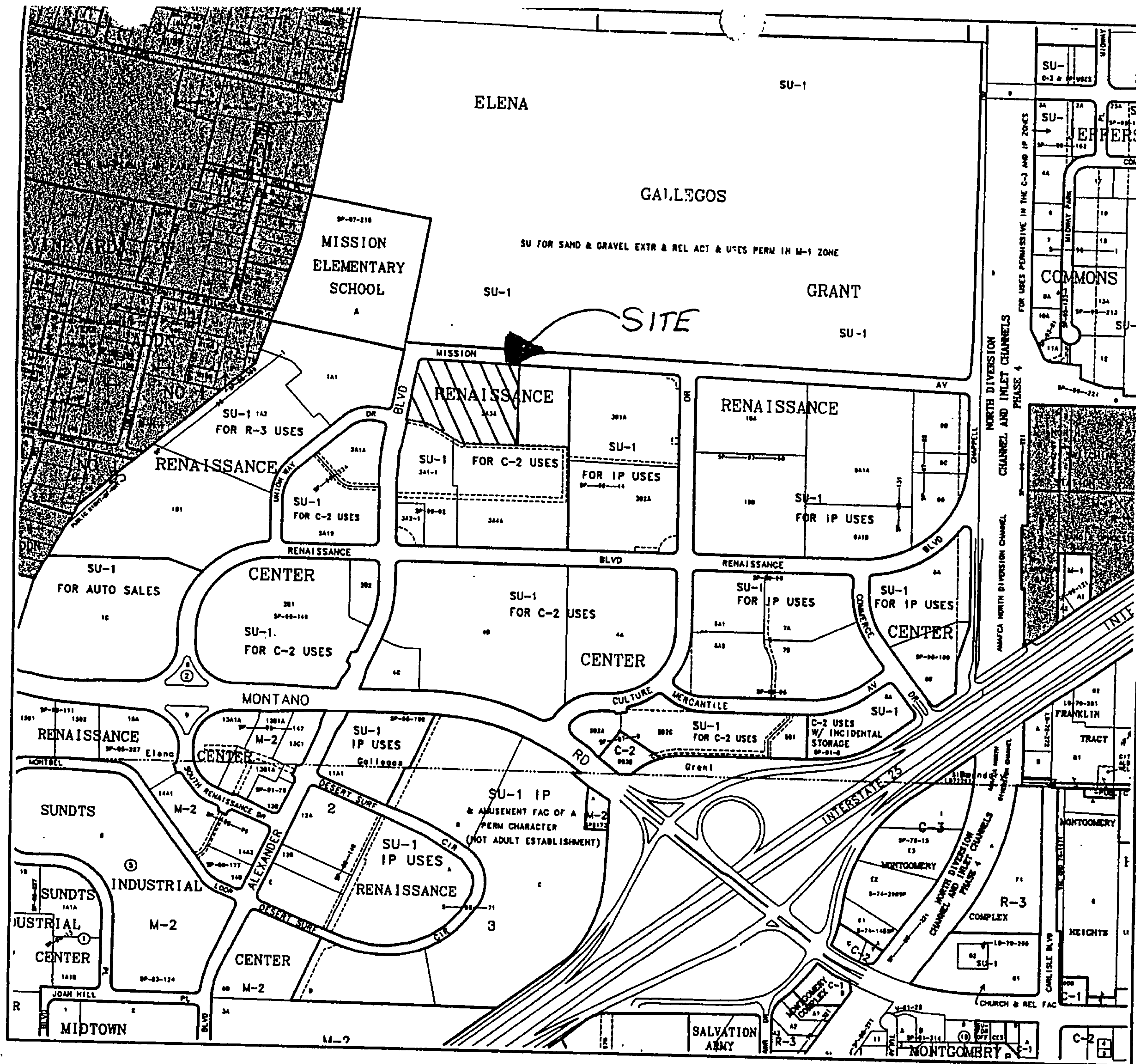
PURPOSE

The purpose of this report is to prove the development of the subject 5.87-acre property, for the use as offices and warehouse, is in accordance with the DPM Chapter 22. This report will demonstrate that the proposed improvements do not adversely effect the surrounding properties nor the upstream or downstream facilities.

INTRODUCTION

The subject of this report, as shown on the Exhibit A vicinity map, is a 5.87-acre parcel of land located on the southeast corner of Mission Boulevard and Alexander Boulevard. The site is located on Zone Atlas page F-16. The site currently exists as a rough graded parcel within the Renaissance Center. The proposed improvements consist of the construction of a 40,097 square foot office/warehouse to be utilized by Federal Express Ground Service. The legal description of the existing property is Lot 3A-3A1 and 3A-3A2 of the North Renaissance Center. As shown on FIRM map 35001C0138D, the site lies within flood zone x.

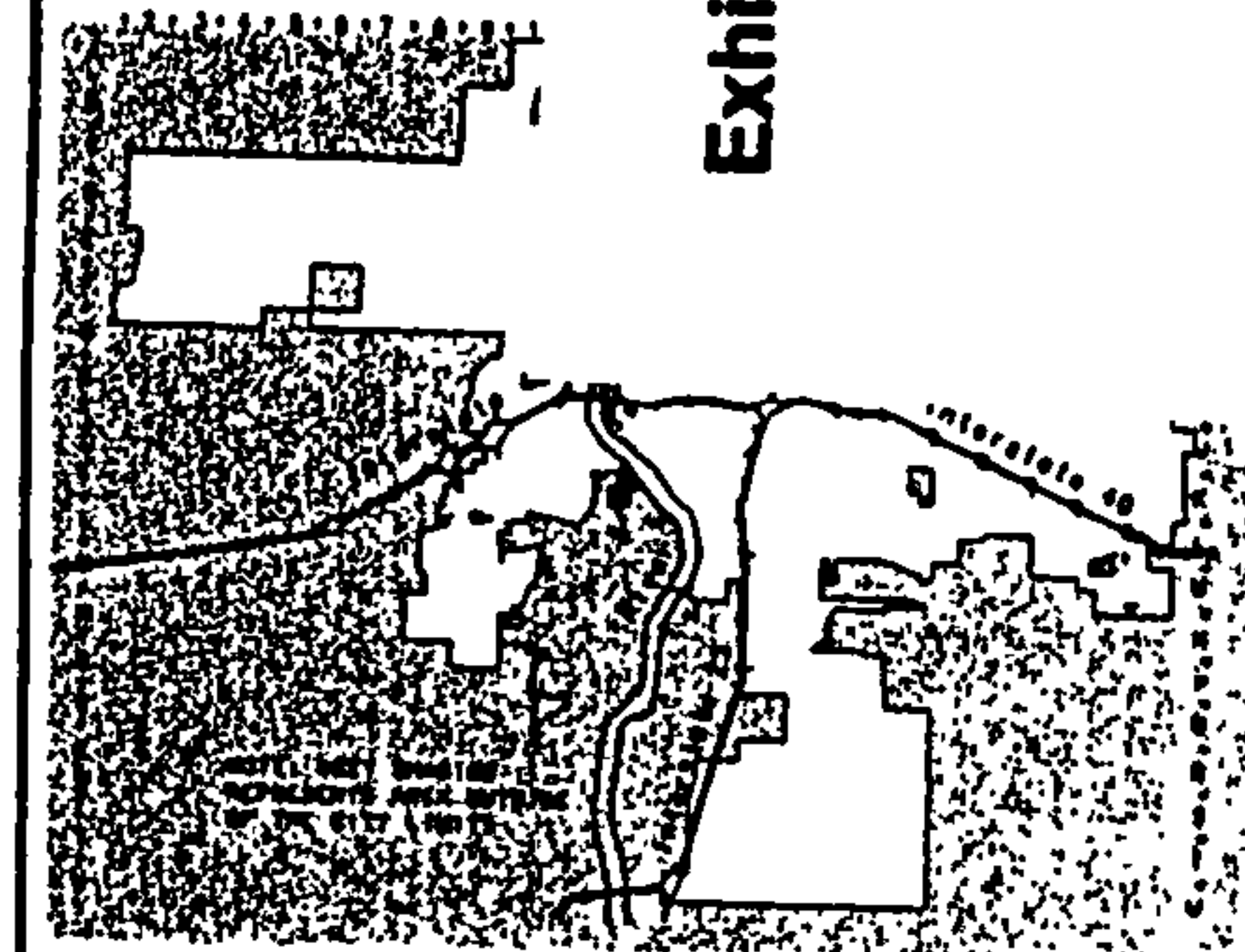
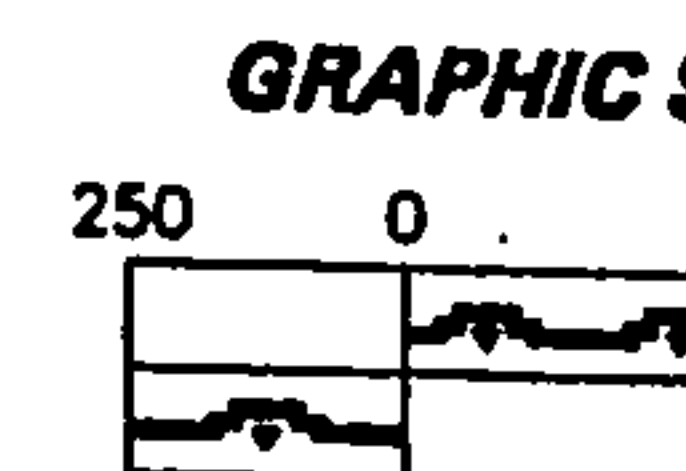
This entire site was analyzed within the Drainage Report and grading plan for Tract 3 of the Renaissance Center (F19-D20) previously submitted by Tierra West, LLC, with the stamp date of 7/4/98. The City of Albuquerque Hydrology Section approved the Drainage Management Plan on 5/11/98. This site was also previously analyzed by Tierra West, LLC and a drainage report dated November 15, 2001. A 6" PVC storm drain was stubbed into future tract 3A3A1 for the benefit of future development. A detention pond is located at the northwest corner of the existing Office Depot, and the General Technology Building to the east discharges their routed flow at the southeast corner of future Tract 3A3A3. Based upon the approved Drainage Management Plan, this site is allowed to discharge .1 CFS per acre in developed conditions. Since our improvements are consistent with developed condition assumptions within the Tract 3 Master Drainage Plan this site should be allowed to discharge .587 CFS to the existing storm drain system.



CITY OF
Albuquerque
A Geographic Information System
PLANNING DEPARTMENT
© Copyright 1999



Exhibit A- Vicinity Map



Zone Atlas Page
F-16-Z

Map Amended through
September 14, 1999

EXISTING CONDITIONS

The site slopes from north to south, with general grades between 3-4%. The site was rough graded with the construction of the Renaissance Center. During the development of Tract 3-B (Office Depot) a series of temporary detention ponds were constructed around the site. A 6" conduit and a temporary retention pond were constructed at the south edge of Tract 3A-3A1. The adjacent Tract 3A-3A3 was recently developed and the flows were diverted and discharged at a rate of .1 CFS per acre. A retention pond was constructed at the midpoint of the southern boundary to collect the undeveloped middle portions of this tract. No offsite flows enter this site from the adjacent properties or rights-of way. Map pocket A contains the grading plans for Tract 3A1 (Office Depot) and Tract 3A-3A (Harrison Building).

PROPOSED CONDITIONS

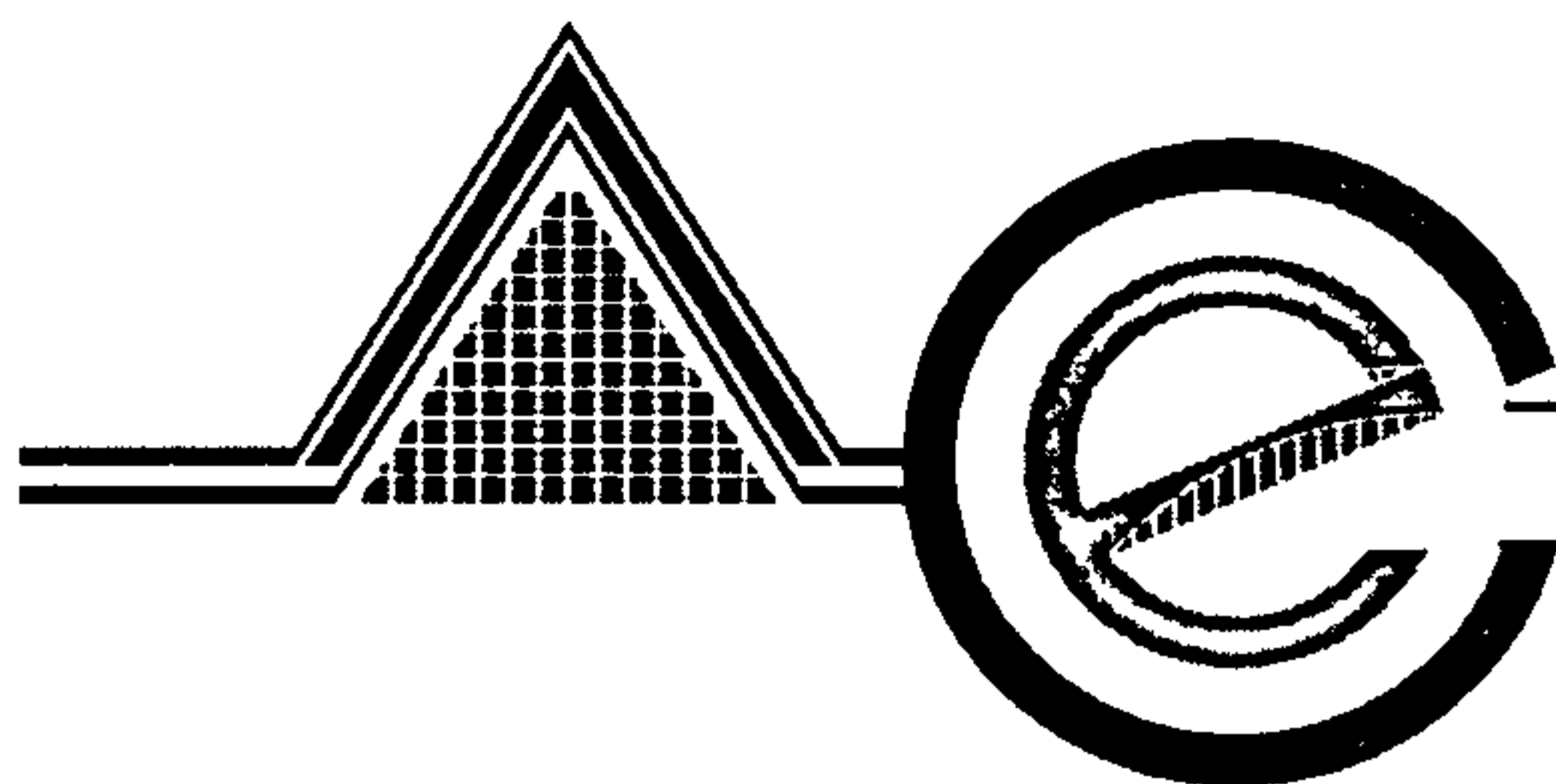
The proposed improvements consist of the construction of a 40,097 square foot office/warehouse to be utilized by Federal Express Ground Service. These improvements will encompass both Tracts 3A-3A-1 and 3A-3A-2. The building will be located on Tract 3A-3A-2 and tract 3A-3A-1 will be utilized as a ponding area. As shown on the Tract 3 basin map (map pocket B) Tract 3A3A1 and 3A-3A-2 is located within Basin 15, 12 and 16. From the Overall Drainage Master plan basin 15 is allowed to discharge .354 CFS. The proposed grading plan will divert all of the onsite flow to a detention pond located at the southwest corner of the site. A copy of the proposed grading plan is located within map pocket C. Since this outlet pipe is existing and was sized to accommodate the flows from overall basin 15 only, our overall site discharge will be limited to .354 CFS.

As shown on the Onsite Drainage Basin Map (Exhibit B) the site is broken into 16 drainage basins. Basins B1-I drain to open grated manholes and are conveyed via underground conduit to the proposed detention pond. Basin A1-A5, J and K drains via surface flow to the same

detention pond. As shown in appendix B, the grated inlet, underground conduits and rundowns have been sized to accommodate the predicted peak discharge for a 100-year, 6-hour storm event. The detention pond will have a 3" orifice plate installed at the outlet to restrict the flow to 0.324 CFS. This pond has been sized to contain the entire volume that would be produced by a 100-year, 24-hour storm event. The analysis of the pond geometry and function is included within Appendix B. The flow leaving Tract 3A3A1 discharges via the existing 6" pipe, which is connected to the existing storm, drain system. The existing storm drain located at the northeast corner of the existing Office Depot captures the access roadway discharge. In a storm event greater than the predicted 100-year storm, all pond will overflow and spill to the adjacent roadways.

SUMMARY AND RECOMMENDATIONS

This site is an existing parcel within the Renaissance Center. The City of Albuquerque Hydrology Section approved the drainage management plan for the entire Tract 3, which our site is a portion of. The master drainage plan allows for a peak discharge rate of 0.1 CFS per acre for the fully developed condition. Since we are including the entire site within basin 15, we are limiting our discharge to the allowable discharge of this basin. The proposed improvements will discharge a peak flow less than the allowed rate. The development of this site is consistent with the DPM, Chapter 22, Hydrology section. Since this site encompasses more than 5 acres, a NPDES permit is required prior to any construction activity. No improvements are to occur within City right of way; therefore an infrastructure list is not required. It is recommended this development be approved for rough grading, and Site Plan for Building Permit.



ADVANCED ENGINEERING and CONSULTING, LLC

*Consulting
Design
Development
Management
Inspection
Surveying*

June 4, 2007

Mr. Bradley L. Bingham, P.E.
Sr. Engineer, Planning Dept.
Development and Building Services
600 Second Street NW
Albuquerque, New Mexico 87102

RE: GRADING AND DRAINAGE PLAN FOR PARKING LOT ADDITION FOR FEDEX
EXPRESS GROUND(F16/D22)

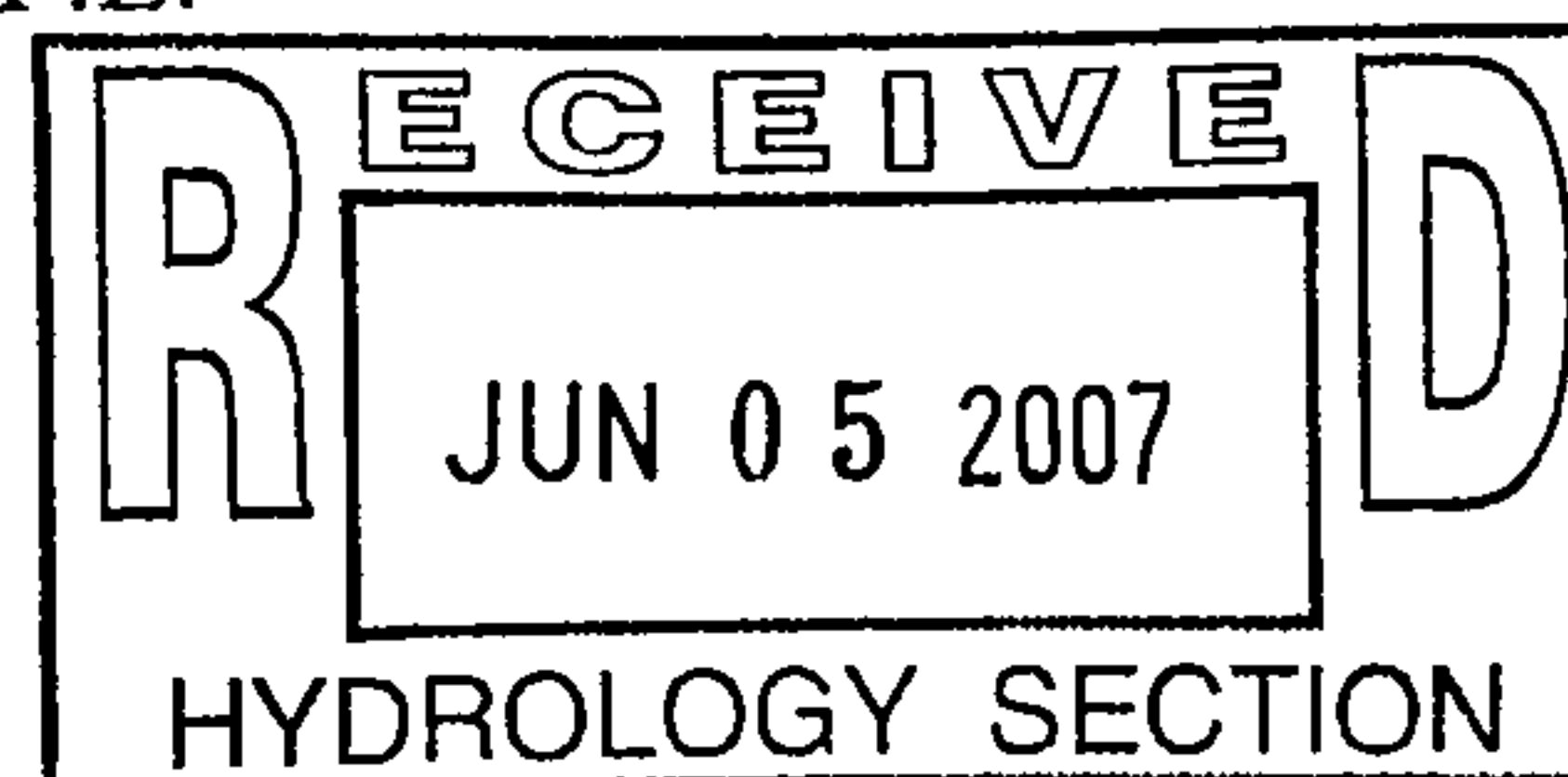
Dear Mr. Bingham:

This letter is in reference to the FedEx Express Parking lot additions on Tract 3A3A2A1, Renaissance Center, located at 1400 Mission Avenue. The previously approved grading plan under the City Drainage Number F16/D22 is attached (reduced to 11x17). Based on the drainage report under the City Drainage number F16/D22 (prepared by Tierra West LLC, with engineer Stamp Date of 05/22/02) the site drain to a detention pond. Then the runoff the drains out at a confined flow rate of (not to exceed) 0.354 cfs. See "Sheet 5" of the attached portion of the Drainage Report prepared by Tierra West, LLC. Based on the new analysis the existing Plate at the discharge point of the detention pond has to be modified from a 3" diameter orifice plate to a 2.36" diameter orifice plate. The runoff from the new parking additions will continue to drain to the revised retention pond, and then the runoff will discharge at a runoff rate of 0.345 cfs. To be more conservative in our calculations the AHYMO runoff calculations were done based on a 100-year/24-hour storm. See attached calculations.

Please contact me if there are any questions or concerns regarding this submittal.

Sincerely yours,

Shahab Biazar, P.E.





City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

March 3, 2003

Ronald R. Bohannon, P.E.
Tierra West, LLC
8509 Jefferson NE
Albuquerque, New Mexico 87113

RE: FEDERAL EXPRESS GROUND (F-16/D22)
(1400 Mission Ave NE)
ENGINEERS CERTIFICATION FOR CERTIFICATE OF OCCUPANCY
ENGINEERS STAMP DATED 5/22/2002
ENGINEERS CERTIFICATION DATED 2/21/2003

Dear Mr. Bohannon:

Based upon the information provided in your Engineers Certification submittal dated 2/21/2003, the above referenced site is approved for a Permanent Certificate of Occupancy.

If I can be of further assistance, please contact me at 924-3981.

Sincerely,

Teresa A. Martin
Hydrology Plan Checker
Development & Bldg. Ser. Division
BLS

C: Certificate of Occupancy Clerk, COA
drainage file
approval file

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/28/2003rd)

PROJECT TITLE: FEDERAL EXPRESS Ground ZONE MAP/DRG. FILE #: F-16/D-22
DRB #: 1000662 EPC#: _____ WORK ORDER#: _____

LEGAL DESCRIPTION: TRACT 3A-3A-2-A Renaissance Center
CITY ADDRESS: 1400 Mission Avenue, NE

ENGINEERING FIRM: Tierra West LLC
ADDRESS: 8509 Jefferson NE
CITY, STATE: Albuquerque NM

CONTACT: David Sule
PHONE: 508-3100
ZIP CODE: 87113

OWNER: Jones Development
ADDRESS: 4600 Madison Suite 725
CITY, STATE: KANSAS MO

CONTACT: Bob Gude
PHONE: 816-756-5700
ZIP CODE: 64112

ARCHITECT: AKT Architects
ADDRESS: PO Box 3380
CITY, STATE: Albuquerque, NM

CONTACT: _____
PHONE: 281-9560
ZIP CODE: 87190

SURVEYOR: Precision Surveys
ADDRESS: 8414-D Jefferson
CITY, STATE: Albuquerque, NM

CONTACT: Larry McQuinn
PHONE: 856-5700
ZIP CODE: 87113

CONTRACTOR: Jaymes Corp.
ADDRESS: 2906 Broadway, NE
CITY, STATE: Albuquerque, NM

CONTACT: Phillip Texeira
PHONE: 345-8591
ZIP CODE: 87107

CHECK TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
- ☐ DRAINAGE PLAN 1st SUBMITTAL, **REQUIRES TCL or equal**
- ☐ DRAINAGE PLAN RESUBMITTAL
- ☐ CONCEPTUAL GRADING & DRAINAGE PLAN
- ☐ GRADING PLAN
- ☐ EROSION CONTROL PLAN
- ☒ ENGINEER'S CERTIFICATION (HYDROLOGY)
- ☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT (TCL)
- ☐ ENGINEERS CERTIFICATION (TCL)
- ☐ ENGINEERS CERTIFICATION (DRB APPR. SITE PLAN)
- ☐ OTHER

CHECK TYPE OF APPROVAL SOUGHT:

- ☐ SIA / FINANCIAL GUARANTEE RELEASE
- ☐ PRELIMINARY PLAT APPROVAL
- ☐ S. DEV. PLAN FOR SUB'D. APPROVAL
- ☐ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
- ☐ SECTOR PLAN APPROVAL
- ☐ FINAL PLAT APPROVAL
- ☐ FOUNDATION PERMIT APPROVAL
- ☐ BUILDING PERMIT APPROVAL
- ☒ CERTIFICATE OF OCCUPANCY (PERM.)
- ☐ CERTIFICATE OF OCCUPANCY (TEMP.)
- ☐ GRADING PERMIT APPROVAL
- ☐ PAVING PERMIT APPROVAL
- ☐ WORK ORDER APPROVAL
- ☐ OTHER (SPECIFY)

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ☐ YES
- ☐ NO
- ☐ COPY PROVIDED

RECEIVED

FEB 21 2003

PWD/DESIGN REVIEW

DATE SUBMITTED: 2/21/03 BY: Ren Wright (259-5635)

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope of the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following:

1. **Conceptual Grading and Drainage Plan:** Required for approval of Site Development Plans greater than five (5) acres and Sector Plans.
2. **Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5) acres.
3. **Drainage Report:** Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

***Planning Department
Transportation Development Services Section***

January 15, 2003

David Soule, P.E.
Tierra West, LLC
8509 Jefferson NE
Albuquerque, NM 87113

Re: Approval of Temporary Certificate of Occupancy (C.O.) for
Federal Express Ground, [F-16 / D-22]
1400/1410 Mission Avenue, NE
Engineer's Stamp Dated 01/14/03

Dear Mr. Soule:

Based on the information provided on your submittal dated January 14, 2003, the above referenced project is approved for a 30-day Temporary C.O.

A Temporary C.O. has been issued allowing the outstanding re-seeding at pond area, parking lot striping of the dock and trailer parking area issues to be completed within this time period. When these remaining issues have been fully completed, are in substantial compliance, and a final Certification for Transportation has been resubmitted to the City's Hydrology office for approval, a Permanent C.O. will be issued.

The Certification package for Final C.O. must include an exact copy of the approved TCL, or signed off D.R.B. Site Plan, which is in each of the two City Permit Plan Sets—the contractor's City field set and the City's plan set in the basement of the Plaza Del Sol building. Package also must include a letter of certification on designer's letterhead- stamped with his seal, signed, and dated. Submit package along with fully completed Drainage Information Sheet to front counter personnel for log in and evaluation by Transportation.

If you have any questions, please call me at 924-3620.

Sincerely,

Nilo E. Salgado-Fernandez, P.E.
Senior Traffic Engineer
Development and Building Services
Planning Department

c: Engineer
Hydrology file
CO Clerk

DRAINAGE AND TRANSPORTATION SHEET

(REV. 1/11/2002)

PROJECT TITLE: Federal Express Ground ZONE MAP/DRG. FILE #: F-16/D-22
DRB #: 1000662 EPC #: _____ WORK ORDER #: _____

LEGAL DESCRIPTION: Tract 3A-3A-2-A of the Renaissance Center
CITY ADDRESS: 1400 Mission Avenue, NE 6/2 1410 Mission

ENGINEERING FIRM: Tierra West, LLC CONTACT: David Soule
ADDRESS: 8509 Jefferson NE PHONE: (505) 858-3100
CITY, STATE: Albuquerque, NM ZIP CODE: 87113

OWNER: Jones Development CONTACT: Bob Gude
ADDRESS: 4600 Madison Suite 725 PHONE: (816) 756-5700
CITY, STATE: Kansas MO 64112 ZIP CODE: 64112

ARCHITECT: AKT Architects CONTACT: _____
ADDRESS: PO Box 3360 PHONE: (505) 281-9560
CITY, STATE: Albuquerque, NM ZIP CODE: 87190

SURVEYOR: Precision Surveys CONTACT: Larry Medrano
ADDRESS: 8414-D Jefferson S PHONE: (505) 856-5700
CITY, STATE: Albuquerque, NM ZIP CODE: 87113

CONTRACTOR: Jaynes CONTACT: Phillip Tenorio
ADDRESS: 2906 Broadway, NE PHONE: (505) 345-8591
CITY, STATE: Albuquerque, NM ZIP CODE: 87107

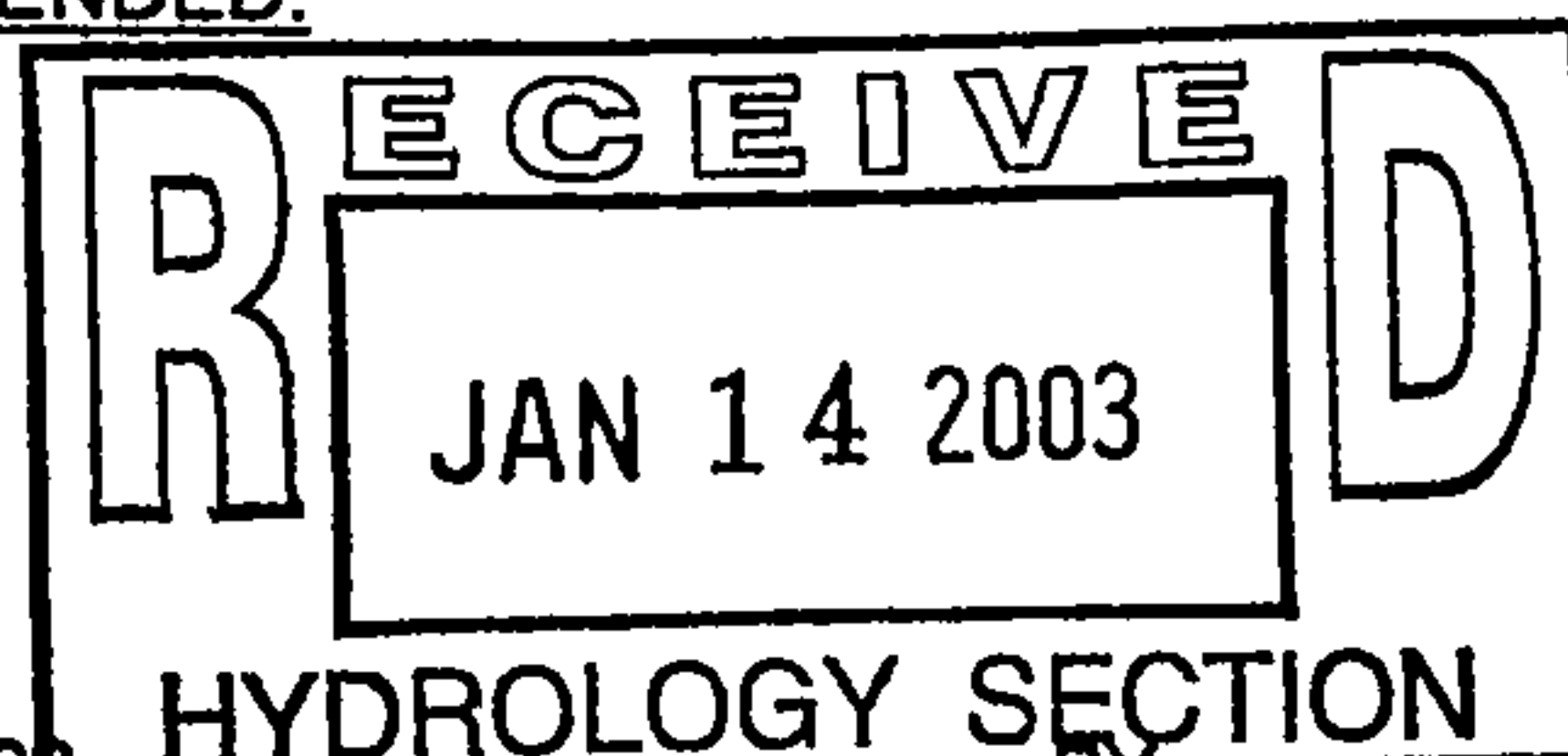
☐ DRAINAGE REPORT
☐ DRAINAGE PLAN
☐ CONCEPTUAL GRADING & DRAINAGE PLAN
☐ GRADING PLAN
☐ EROSION CONTROL PLAN
☐ ENGINEER'S CERTIFICATION (HYDROLOGY)
☐ CLOMR/LOMR
☐ TRAFFIC CIRCULATION LAYOUT (TCL)
☒ ENGINEERS CERTIFICATION (TCL)
☒ ENGINEERS CERTIFICATION (DRB APPR. SITE PLAN)
☐ OTHER(master utility plan)

CHECK TYPE OF APPROVAL SOUGHT:

☐ SIA / FINANACIAL GUARANTEE RELEASE
☐ PRELIMINARY PLAT APPROVAL
☐ S. DEV. PLAN FOR SUB'D. APPROVAL
☐ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
☐ SECTOR PLAN APPROVAL
☐ FINAL PLAT APPROVAL
☐ FOUNDATION PERMIT APPROVAL
☐ BUILDING PERMIT APPROVAL
☐ CERTIFICATE OF OCCUPANCY (PERM.)
☒ CERTIFICATE OF OCCUPANCY (TEMP.)
☐ GRADING PERMIT APPROVAL
☐ PAVING PERMIT APPROVAL
☐ WORK ORDER APPROVAL
☐ OTHER (SPECIFY)

WAS A PRE-DESIGN CONFERENCE ATTENDED:

☐ YES
☒ NO
☐ COPY PROVIDED



DATE SUBMITTED: 1/14/2003 BY: Ronald Wright (259-5635)

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope of the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following:

1. **Conceptual Grading and Drainage Plans:** Required for approval of Site Development Plans greater than five (5) acres
2. **Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5) acres.
3. **Drainage Report:** Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.

TIERRA WEST, LLC

8509 Jefferson NE
Albuquerque, NM 87113

(505) 858-3100
fax (505) 858-1118

twllc@tierrawestllc.com
1-800-245-3102

January 14, 2003

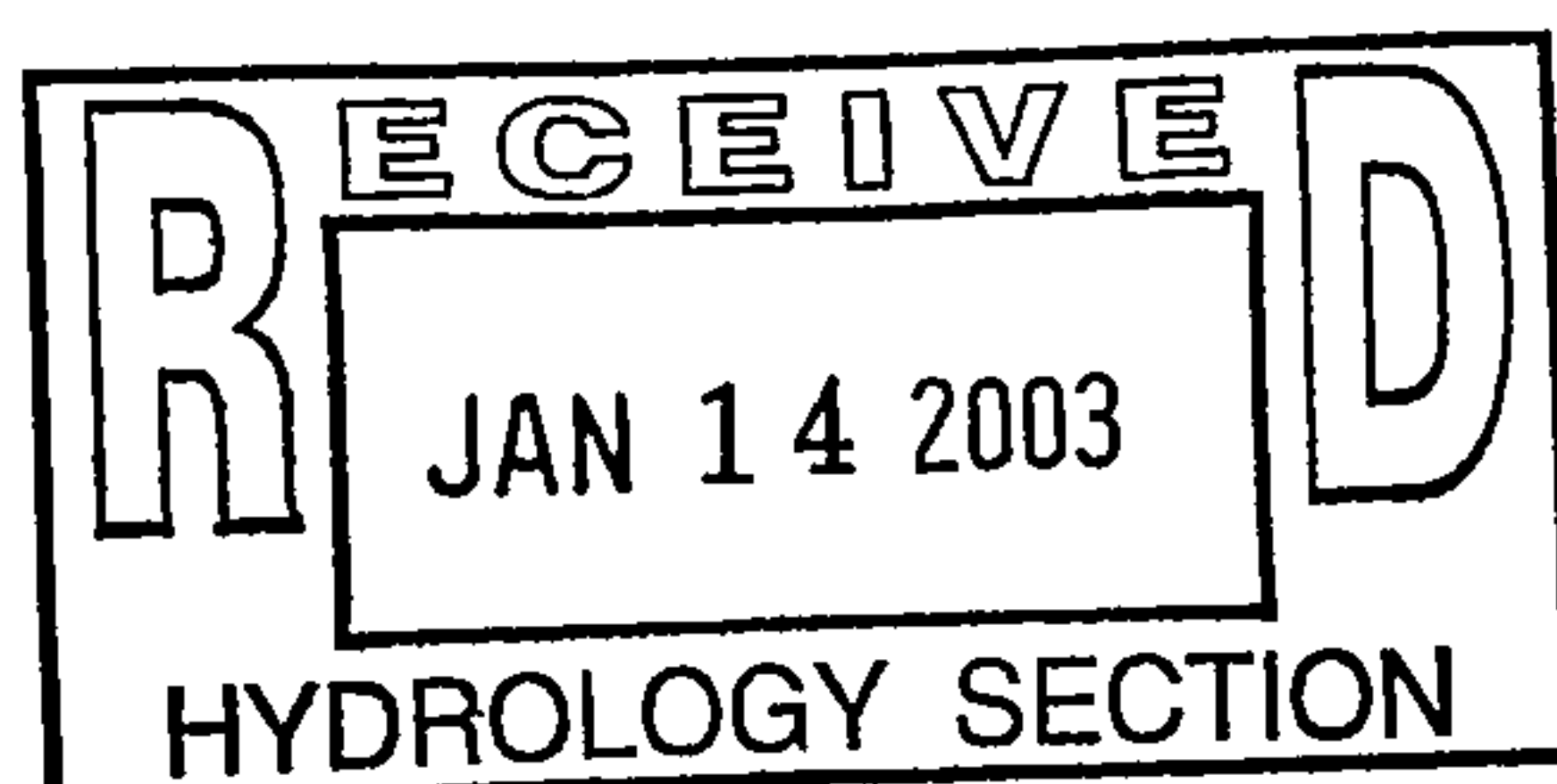
Mrs. Terri Martin
Public Works Department
City of Albuquerque
PO Box 1293
Albuquerque, NM 87103

**RE: 30-Day Temporary Certification of Transportation for Certificate of Occupancy
Fed Ex Ground, Tract 3A-3-A-1-2 North Renaissance Center
1400 Mission Avenue, NE
1410**

Dear Terri:

We are requesting a 30-Day Temporary Certification of Transportation for Certificate of Occupancy. Enclosed please find one copy of the as-built Traffic Circulation Plan (Site Plan) and Information Sheet for the Fed Ex Ground Distribution Center located in North Renaissance Center. Jaynes Corporation completed the on-site paving, curb and gutter, and sidewalks. Landscaping for the site is complete with the exception of re-seeding at the pond area. The purpose of this request is to allow Fex Ex personnel access to the building for installation of their sorting equipment. Parking lot striping is complete with the exception of the dock and trailer parking areas. As-built information was field verified by our office. We are, therefore, requesting 30-Day Temporary Certification of Transportation for Certificate of Occupancy. Final Certification is anticipated within two weeks.

If you have any questions regarding this matter, please do not hesitate to call me.



Enclosures

cc: Bob Gude
Phillip Tenorio

JN: 220025W
DS/rw

Sincerely,

A handwritten signature in black ink, appearing to read "DS" or "Soule".

David Soule, PE



220025 -Temp CO Transportation ltr



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

January 21, 2003

Ronald R. Bohannon, P.E.
Tierra West, LLC
8509 Jefferson NE
Albuquerque, New Mexico 87113

RE: FEDERAL EXPRESS GROUND (F-16/D22)
(1400 Mission Ave NE)
CERTIFICATE OF OCCUPANCY APPROVAL-*Temporary*
ENGINEERS CERTIFICATION DATED 1/17/2003

Dear Mr. Bohannon:

Based on the information provided in your submittal dated 1/17/2003, the above referenced project is approved for a **TEMPORARY** Certificate of Occupancy.

A Temporary Certificate of Occupancy has been issued for 30 days, allowing the remaining drainage issues to be completed within this time scope.

After the outstanding drainage issues have been addressed, a final submittal of the Engineers Certification will be required for issuance of a Permanent Certificate of Occupancy.

If I can be of further assistance, please feel free to contact me at 924-3981.

Sincerely,

Teresa A. Martin
Hydrology Plan Checker
Development and Building Services Division
B&B

c: Certificate of Occupancy Clerk, COA
✓ Drainage file
Approval file

DRAINAGE AND TRANSPORTATION SHEET

(REV. 1/11/2002)

PROJECT TITLE: Federal Express Ground
DRB #: 1000662 EPC #: _____

ZONE MAP/DRG. FILE #: F-16/D-22
WORK ORDER #: _____

LEGAL DESCRIPTION: Tract 3A-3A-2-A of the Renaissance Center
CITY ADDRESS: 1400 Mission Avenue, NE

ENGINEERING FIRM: Tierra West, LLC
ADDRESS: 8509 Jefferson NE
CITY, STATE: Albuquerque, NM

CONTACT: David Soule
PHONE: (505) 858-3100
ZIP CODE: 87113

OWNER: Jones Development
ADDRESS: 4600 Madison Suite 725
CITY, STATE: Kansas MO 64112

CONTACT: Bob Gude
PHONE: (816) 756-5700
ZIP CODE: 64112

ARCHITECT: AKT Architects
ADDRESS: PO Box 3360
CITY, STATE: Albuquerque, NM

CONTACT: _____
PHONE: (505) 281-9560
ZIP CODE: 87190

SURVEYOR: Precision Surveys
ADDRESS: 8414-D Jefferson S
CITY, STATE: Albuquerque, NM

CONTACT: Larry Medrano
PHONE: (505) 856-5700
ZIP CODE: 87113

CONTRACTOR: Jaynes
ADDRESS: 2906 Broadway, NE
CITY, STATE: Albuquerque, NM

CONTACT: Phillip Tenorio
PHONE: (505) 345-8591
ZIP CODE: 87107

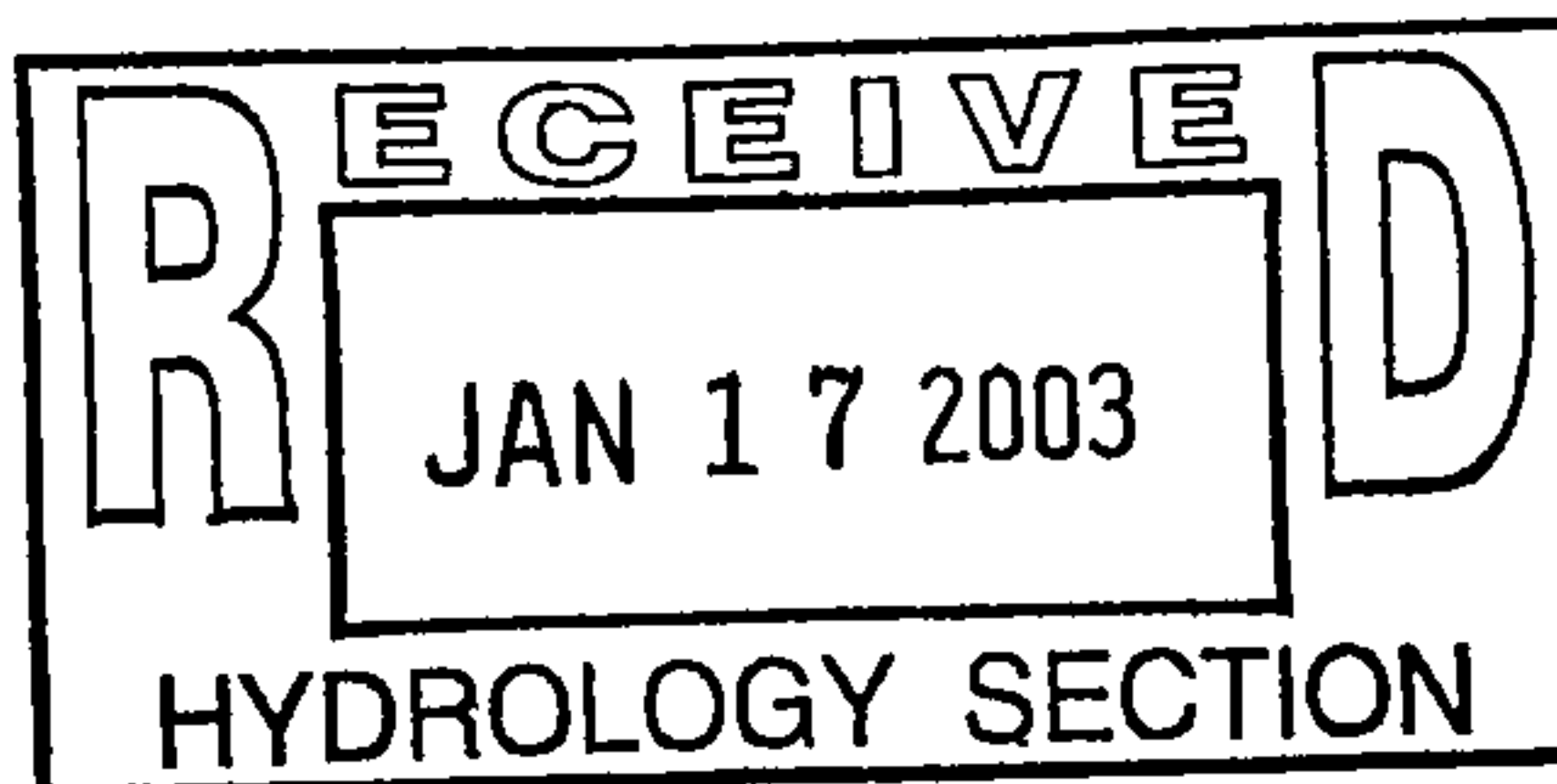
☐ DRAINAGE REPORT
☐ DRAINAGE PLAN
☐ CONCEPTUAL GRADING & DRAINAGE PLAN
☐ GRADING PLAN
☐ EROSION CONTROL PLAN
☒ ENGINEER'S CERTIFICATION (HYDROLOGY)
☐ CLOMR/LOMR
☐ TRAFFIC CIRCULATION LAYOUT (TCL)
☐ ENGINEERS CERTIFICATION (TCL)
☐ ENGINEERS CERTIFICATION (DRB APPR. SITE PLAN)
☐ OTHER(master utility plan)

CHECK TYPE OF APPROVAL SOUGHT:

☐ SIA / FINANACIAL GUARANTEE RELEASE
☐ PRELIMINARY PLAT APPROVAL
☐ S. DEV. PLAN FOR SUB'D. APPROVAL
☐ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
☐ SECTOR PLAN APPROVAL
☐ FINAL PLAT APPROVAL
☐ FOUNDATION PERMIT APPROVAL
☐ BUILDING PERMIT APPROVAL
☐ CERTIFICATE OF OCCUPANCY (PERM.)
☒ CERTIFICATE OF OCCUPANCY (TEMP.)
☐ GRADING PERMIT APPROVAL
☐ PAVING PERMIT APPROVAL
☐ WORK ORDER APPROVAL
☐ OTHER (SPECIFY)

WAS A PRE-DESIGN CONFERENCE ATTENDED:

☐ YES
☒ NO
☐ COPY PROVIDED

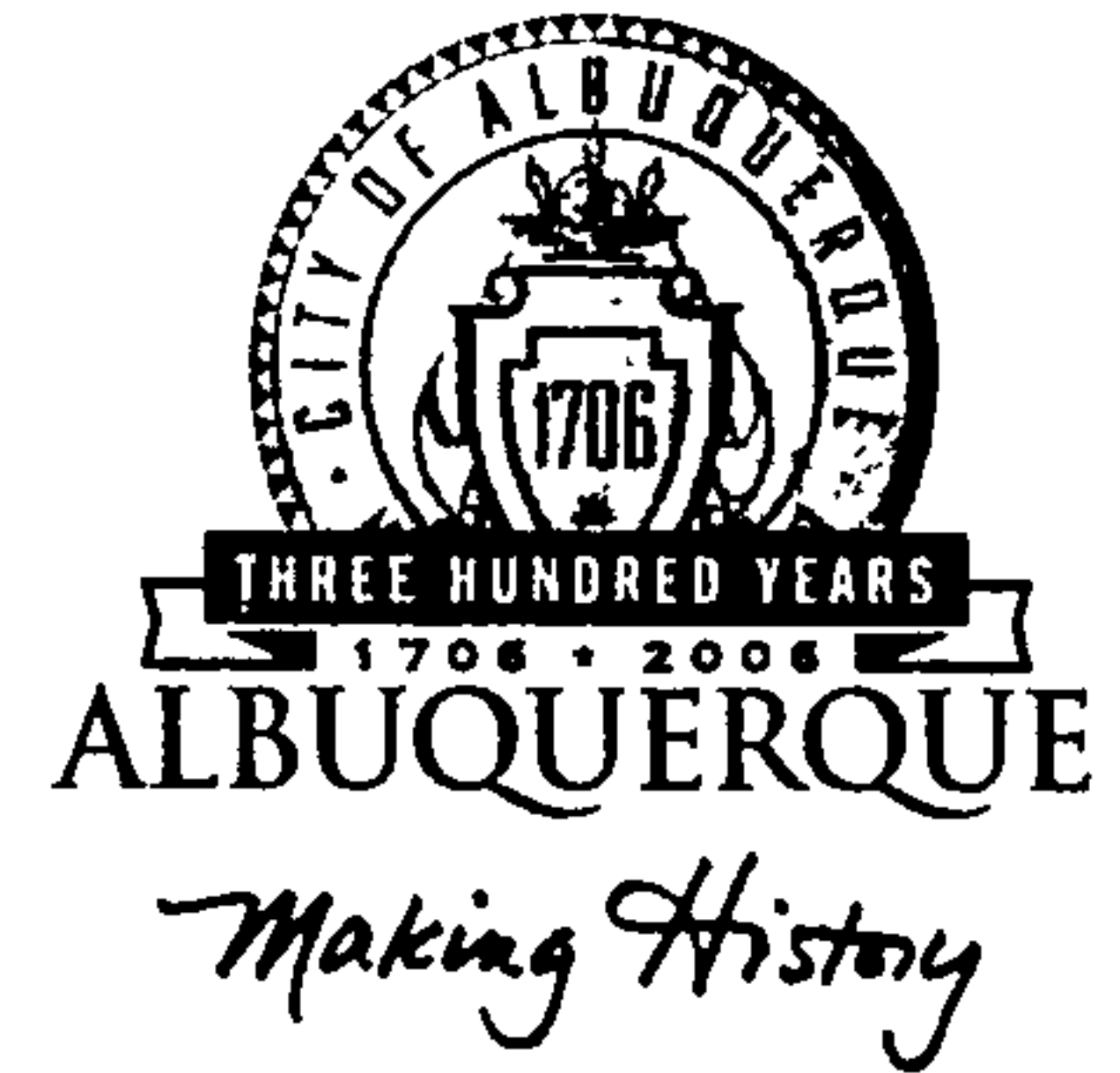


DATE SUBMITTED: 1/14/2003 BY: Ronald Wright (259-5635)

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope of the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following:

1. **Conceptual Grading and Drainage Plans:** Required for approval of Site Development Plans greater than five (5) acres
2. **Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5) acres.
3. **Drainage Report:** Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.

CITY OF ALBUQUERQUE



August 15, 2005

Mr. Ron Bohannon, P.E.
TIERRA WEST, LLC
8509 Jefferson St. NE
Albuquerque, NM 87113

Re: HARRISON BUILDING ADDITION
1420 Mission Avenue NE
Approval of Permanent Certificate of Occupancy (C.O.)
Engineer's Stamp dated 03/04/2005 (F-16/D20A)
Certification dated 08/22/2005

P.O. Box 1293

Dear Ron:

Albuquerque

Based upon the information provided in your submittal received 08/24/2005, the above referenced certification is approved for release of Permanent Certificate of Occupancy by Hydrology.

New Mexico 87103

If you have any questions, you can contact me at 924-3982.

Sincerely,

Arlene V. Portillo
Plan Checker, Planning Dept. - Hydrology
Development and Building Services

www.cabq.gov

C: Phyllis Villanueva
File

DRAINAGE AND TRANSPORTATION SHEET

(REV. 1/28/2003rd)

PROJECT TITLE: Harrison Building
DRB #: _____ EPC #: _____

ZONE MAP/DRG. FILE #: F16/D20A
WORK ORDER #: _____

LEGAL DESCRIPTION Tract 3A-3-A-3, Renaissance Center
CITY ADDRESS: 1420 Mission Avenue

ENGINEERING FIRM: Tierra West, LLC
ADDRESS: 8509 Jefferson NE
CITY, STATE: Albuquerque, NM

CONTACT: Ronald R. Bohannon
PHONE: (505) 858-3100
ZIP CODE: 87113

OWNER: Russ Harrison
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

ARCHITECT: Dekker Perich Sabatini
ADDRESS: 6801 Jefferson NE
CITY, STATE: Albuquerque, NM

CONTACT: Amit Rede
PHONE: 505-761-9700
ZIP CODE: 87109

SURVEYOR: Sandia Land Surveying
ADDRESS: 6705 Giselle NE
CITY, STATE: Albuquerque, NM

CONTACT: Chris Medina
PHONE: 505-828-0858
ZIP CODE: 87114

CONTRACTOR: Summit Construction
ADDRESS: 900 Hazeldine SE
CITY, STATE: Albuquerque, NM

CONTACT: Tony Thomas
PHONE: 505-842-8113
ZIP CODE: 87106

CHECK TYPE OF SUBMITTAL:

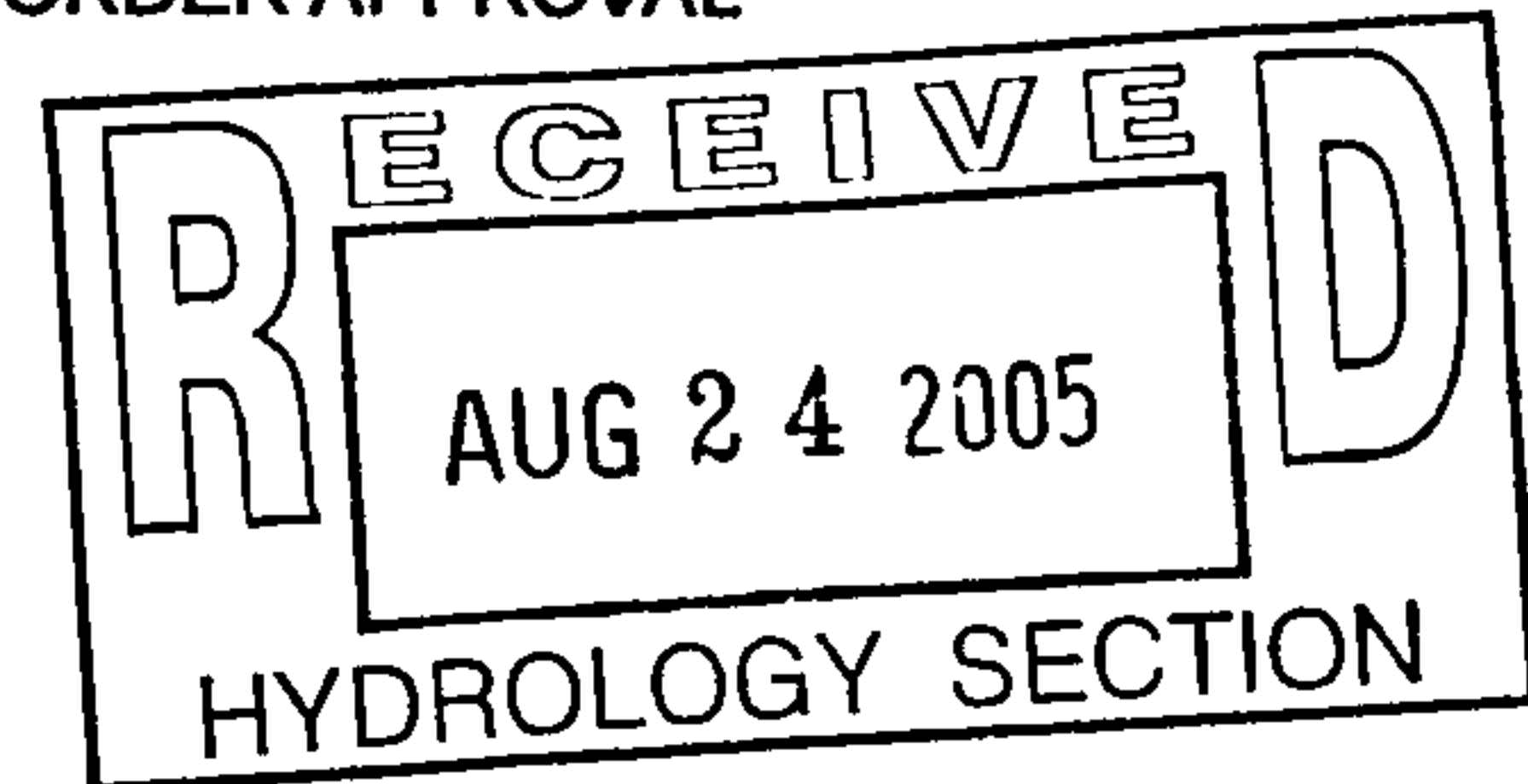
- ☐ DRAINAGE REPORT
- ☐ DRAINAGE PLAN 1st SUBMITTAL, **REQUIRES TCL or equal**
- ☐ DRAINAGE PLAN RESUBMITTAL
- ☐ CONCEPTUAL GRADING & DRAINAGE PLAN
- ☐ GRADING PLAN
- ☐ EROSION CONTROL PLAN
- ☒ ENGINEER'S CERTIFICATION (HYDROLOGY)
- ☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT (TCL)
- ☐ ENGINEERS CERTIFICATION (TCL)
- ☐ ENGINEERS CERTIFICATION (DRB APPR. SITE PLAN)
- ☐ OTHER

CHECK TYPE OF APPROVAL SOUGHT:

- ☐ SIA / FINANACIAL GUARANTEE RELEASE
- ☐ PRELIMINARY PLAT APPROVAL
- ☐ S. DEV. PLAN FOR SUB'D. APPROVAL
- ☐ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
- ☐ SECTOR PLAN APPROVAL
- ☐ FINAL PLAT APPROVAL
- ☐ FOUNDATION PERMIT APPROVAL
- ☐ BUILDING PERMIT APPROVAL
- ☒ CERTIFICATE OF OCCUPANCY (PERM.)
- ☐ CERTIFICATE OF OCCUPANCY (TEMP.)
- ☐ GRADING PERMIT APPROVAL
- ☐ PAVING PERMIT APPROVAL
- ☐ WORK ORDER APPROVAL
- ☐ SO-19

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ☐ YES
- ☐ NO
- ☐ COPY PROVIDED



DATE SUBMITTED: 8/28/05 8/24/05 BY: Ronald Wright (259-5635)

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope of the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following:

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3. **Drainage Report:** Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

***Planning Department
Transportation Development Services Section***

February 24, 2003

David Soule, PE
8509 Jefferson NE
Albuquerque, NM 87113

Re: Certification Submittal for Final Building Certificate of Occupancy for
Federal Express Ground [F-16/ D22]
1400 Mission ave. NE
Engineer Stamp Dated 2/21/03

Dear Mr. Soule:

The TCL letter of certification submitted on February 21, 2003 is sufficient for acceptance by this office for final Certificate of Occupancy (C.O.). Notification has been made to the Building and Safety Section.

Sincerely,

Richard Dourte, PE
Development and Building Services
Planning Department

c: file
Hydrology file

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(REV. 1/28/2003rd)

PROJECT TITLE: FEDERAL EXPRESS Ground ZONE MAP/DRG. FILE #: F-16/D-22
DRB #: 1000662 EPC#: _____ WORK ORDER#: _____

LEGAL DESCRIPTION: TRACT 3A-3A-2-A Renaissance Center
CITY ADDRESS: 1400 Mission Avenue, NE

ENGINEERING FIRM: Tierra West LLC
ADDRESS: 8509 Jefferson NE
CITY, STATE: Albuquerque NM

CONTACT: David Swile
PHONE: 858-3100
ZIP CODE: 87113

OWNER: Jones Development
ADDRESS: 4600 Madison Suite 725
CITY, STATE: KANSAS MO

CONTACT: Bob Gude
PHONE: 816-756-5700
ZIP CODE: 64112

ARCHITECT: AKT Architects
ADDRESS: PO Box 3360
CITY, STATE: Albuquerque, NM

CONTACT: _____
PHONE: 281-9560
ZIP CODE: 87190

SURVEYOR: Precision Surveys
ADDRESS: 8414-D Jefferson
CITY, STATE: Albuquerque, NM

CONTACT: Larry McCrano
PHONE: 856-5700
ZIP CODE: 87113

CONTRACTOR: Jaymes Corp.
ADDRESS: 2906 Broadway, NE
CITY, STATE: Albuquerque, NM

CONTACT: Phillip Tencorio
PHONE: 345-8591
ZIP CODE: 87107

CHECK TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
- ☐ DRAINAGE PLAN 1st SUBMITTAL, **REQUIRES TCL or equal**
- ☐ DRAINAGE PLAN RESUBMITTAL
- ☐ CONCEPTUAL GRADING & DRAINAGE PLAN
- ☐ GRADING PLAN
- ☐ EROSION CONTROL PLAN
- ☐ ENGINEER'S CERTIFICATION (HYDROLOGY)
- ☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT (TCL)
- ☒ ENGINEERS CERTIFICATION (TCL)
- ☒ ENGINEERS CERTIFICATION (DRB APPR. SITE PLAN)
- ☐ OTHER

CHECK TYPE OF APPROVAL SOUGHT:

- ☐ SIA / FINANCIAL GUARANTEE RELEASE
- ☐ PRELIMINARY PLAT APPROVAL
- ☐ S. DEV. PLAN FOR SUB'D. APPROVAL
- ☐ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
- ☐ SECTOR PLAN APPROVAL
- ☐ FINAL PLAT APPROVAL
- ☐ FOUNDATION PERMIT APPROVAL
- ☐ BUILDING PERMIT APPROVAL
- ☒ CERTIFICATE OF OCCUPANCY (PERM.)
- ☐ CERTIFICATE OF OCCUPANCY (TEMP.)
- ☐ GRADING PERMIT APPROVAL
- ☐ PAVING PERMIT APPROVAL
- ☐ WORK ORDER APPROVAL
- ☐ OTHER (SPECIFY)

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ☐ YES
- ☐ NO
- ☐ COPY PROVIDED

RECEIVED

FEB 21 2003

PWD/DESIGN REVIEW

DATE SUBMITTED: 2/21/03 BY: RON WRIGHT (259-5635)

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TIERRA WEST, LLC

8509 Jefferson NE
Albuquerque, NM 87113

(505) 858-3100
fax (505) 858-1118

twllc@tierrawestllc.com
1-800-245-3102

February 21, 2003

Mrs. Terri Martin
Public Works Department
City of Albuquerque
PO Box 1293
Albuquerque, NM 87103

**RE: Final Certification of Transportation for Certificate of Occupancy
Fed Ex Ground, Tract 3A-3-A-1-2 North Renaissance Center
1400 Mission Avenue, NE**

Dear Terri:

We are requesting Final Certification of Transportation for Certificate of Occupancy. Enclosed please find one copy of the as-built Traffic Circulation Plan (Site Plan) and Information Sheet for the Fed Ex Ground Distribution Center located in North Renaissance Center. Jaynes Corporation completed the on-site paving, curb and gutter, and sidewalks. Landscaping for the site is complete. Parking lot striping is complete with the exception of the Tractor parking noted on the as-built. It will be striped after the asphalt is sealed. The owner is aware of this item. As-built information was field verified by our office and is in substantial compliance with the approved Site Plan. We are, therefore, requesting Final Certification of Transportation for Certificate of Occupancy.

If you have any questions regarding this matter, please do not hesitate to call me.

Sincerely,



David Soule, PE



Enclosures

cc: Bob Gude
Phillip Tenorio

JN: 220025W
DS/rw

RECEIVED
FEB 21 2003
PWD/DESIGN REVIEW

220025 -Final Transportation ltr



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

June 17, 2002

Ron Bohannon, PE
Tierra West LLC
8509 Jefferson NE
Albuquerque, NM 87113

Re: FedEx Ground Drainage Report
Engineer's Stamp dated 5-22-02 (F16/D22)

Dear Mr. Bohannon,

Based upon the information provided in your submittal dated 5-23-02, the above referenced report is approved for Site Development Plan for Building Permit action by the DRB and Building Permit.

Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology. Also, prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required.

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

Sincerely,

Bradley L. Bingham, PE
Sr. Engineer, PWD
Development and Building Services

C: file

DRAINAGE AND TRANSPORTATION SHEET

(REV. 1/11/2002)

F-16 / D22

PROJECT TITLE: Federal Express Ground
DRB #: _____ EPC #: _____

ZONE MAP/DRG. FILE #: F-16
WORK ORDER #: _____

LEGAL DESCRIPTION Tract 3A-3A-1,2 of the Renaissance Center
CITY ADDRESS: _____

ENGINEERING FIRM: Tierra West, LLC
ADDRESS: 8509 Jefferson NE
CITY, STATE: Albuquerque, NM

CONTACT: David Soule
PHONE: (505) 858-3100
ZIP CODE: 87113

OWNER: Jones Development
ADDRESS: 4600 Madison Suite 725
CITY, STATE: Kansas MO 64112

CONTACT: Bob Gude
PHONE: _____
ZIP CODE: 64112

ARCHITECT: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

SURVEYOR: Precision Surveys
ADDRESS: 8414-D Jefferson Street, NE
CITY, STATE: Albuquerque, NM

CONTACT: Larry Medrano
PHONE: (505) 856-5700
ZIP CODE: 87113

CONTRACTOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

CHECK TYPE OF SUBMITTAL:

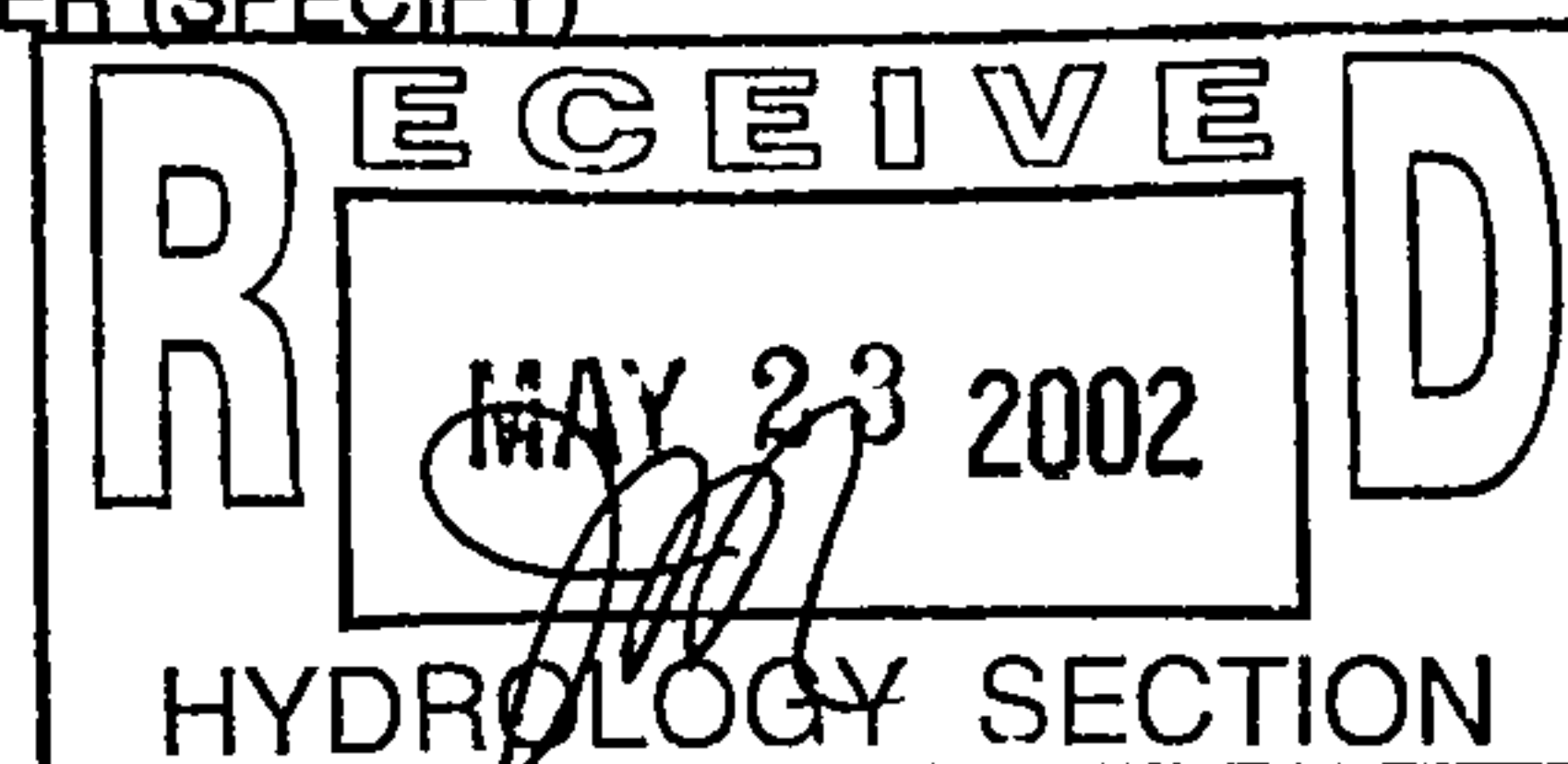
- ☒ DRAINAGE REPORT
- ☒ DRAINAGE PLAN
- ☐ CONCEPTUAL GRADING & DRAINAGE PLAN
- ☒ GRADING PLAN
- ☒ EROSION CONTROL PLAN
- ☐ ENGINEER'S CERTIFICATION (HYDROLOGY)
- ☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT (TCL)
- ☐ ENGINEERS CERTIFICATION (TCL)
- ☐ ENGINEERS CERTIFICATION (DRB APPR. SITE PLAN)
- ☐ OTHER(master utility plan)

CHECK TYPE OF APPROVAL SOUGHT:

- ☐ SIA / FINANACIAL GUARANTEE RELEASE
- ☐ PRELIMINARY PLAT APPROVAL
- ☐ S. DEV. PLAN FOR SUB'D. APPROVAL
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- ☐ PAVING PERMIT APPROVAL
- ☐ WORK ORDER APPROVAL
- ☐ OTHER (SPECIFY) _____

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ☐ YES
- ☒ NO
- ☐ COPY PROVIDED



DATE SUBMITTED: 5/22/02 BY: David Soule

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REVISED
DRAINAGE REPORT

for

**Federal Express-Ground
Tract 3A-3A-1,2
Renaissance Center
Albuquerque, New Mexico**

Prepared by

Tierra West, LLC
8509 Jefferson Blvd NE
Albuquerque, New Mexico 87113

Prepared for
Mr. Bob Gude
4600 Madison, Suite 725
Kansas MO 64112



May 2002

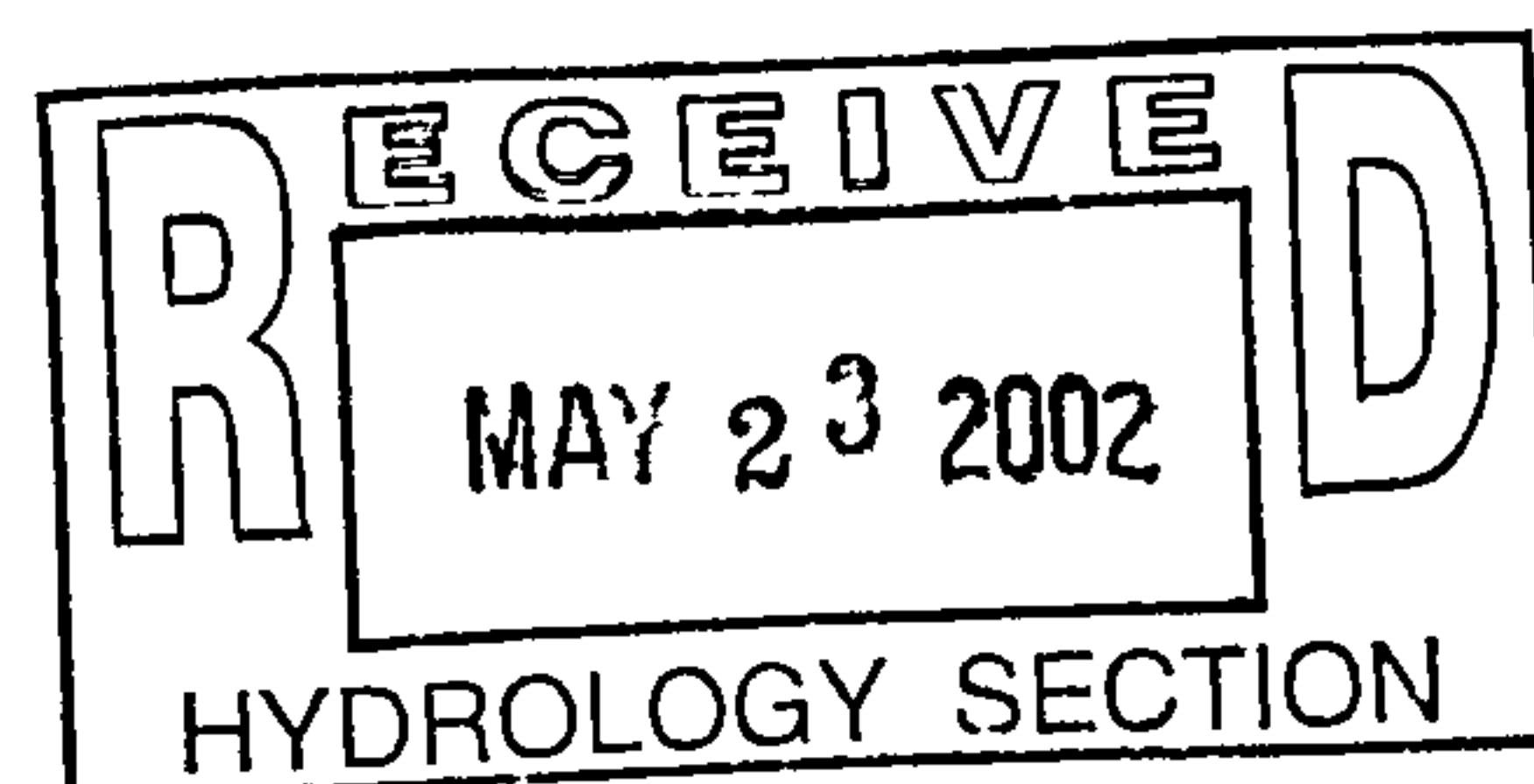
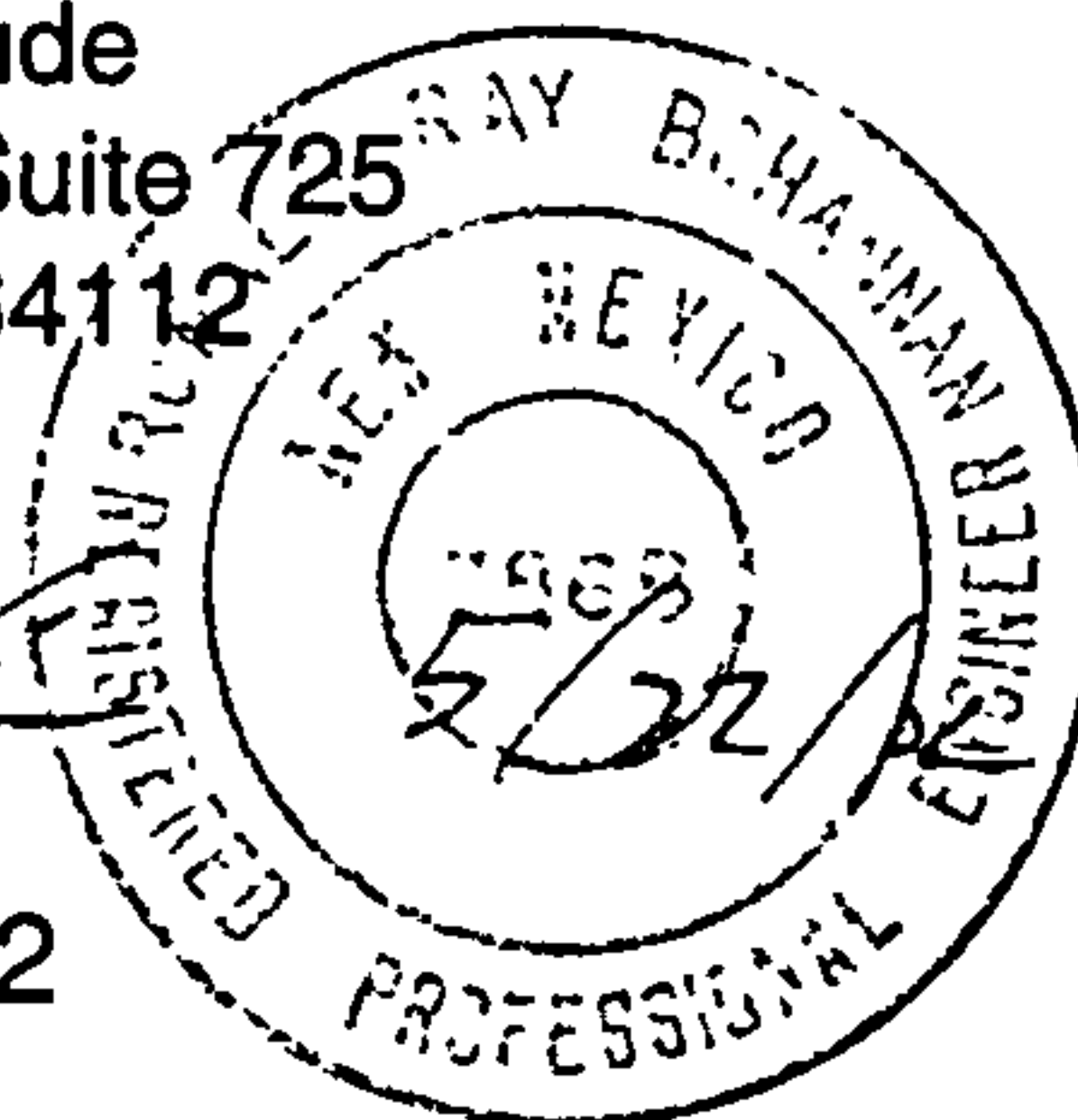


TABLE OF CONTENTS

Purpose..... 3

Introduction 3

Vicinity Map..... 4

Existing Conditions 5

Proposed Conditions 5

Onsite Basin Map..... 6

Summary..... 7

Appendix

Site Hydrology.....A

Hydraulic Analysis.....B

Map Pocket

Adjacent Properties Grading PlansA

Overall Tract 3 Drainage Basin MapB

Grading and Drainage PlanC

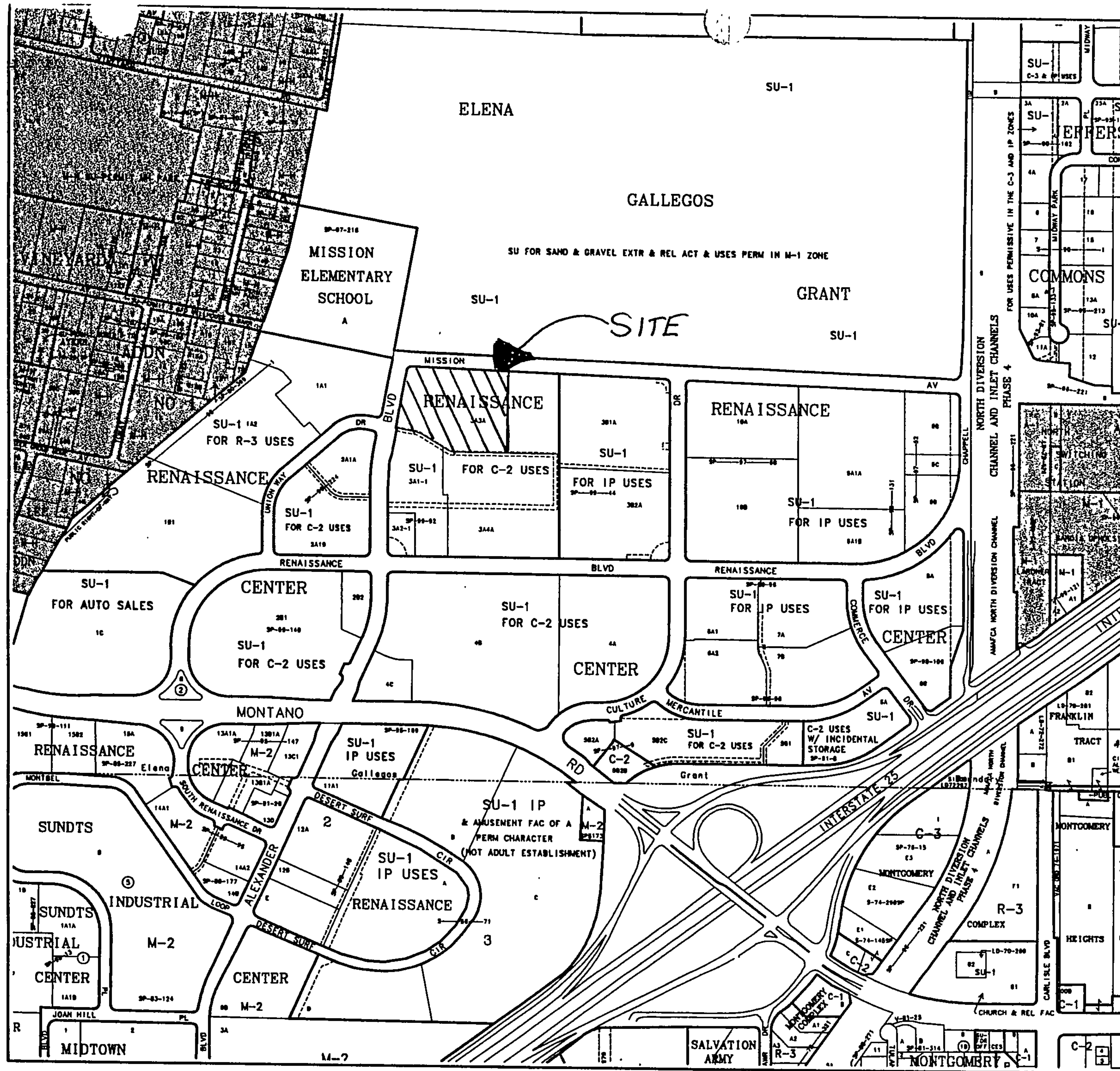
PURPOSE

The purpose of this report is to prove the development of the subject 5.87-acre property, for the use as offices and warehouse, is in accordance with the DPM Chapter 22. This report will demonstrate that the proposed improvements do not adversely effect the surrounding properties nor the upstream or downstream facilities.

INTRODUCTION

The subject of this report, as shown on the Exhibit A vicinity map, is a 5.87-acre parcel of land located on the southeast corner of Mission Boulevard and Alexander Boulevard. The site is located on Zone Atlas page F-16. The site currently exists as a rough graded parcel within the Renaissance Center. The proposed improvements consist of the construction of a 40,097 square foot office/warehouse to be utilized by Federal Express Ground Service. The legal description of the existing property is Lot 3A-3A1 and 3A-3A2 of the North Renaissance Center. As shown on FIRM map 35001C0138D, the site lies within flood zone x.

This entire site was analyzed within the Drainage Report and grading plan for Tract 3 of the Renaissance Center (F19-D20) previously submitted by Tierra West, LLC, with the stamp date of 7/4/98. The City of Albuquerque Hydrology Section approved the Drainage Management Plan on 5/11/98. This site was also previously analyzed by Tierra West, LLC and a drainage report dated November 15, 2001. A 6" PVC storm drain was stubbed into future tract 3A3A1 for the benefit of future development. A detention pond is located at the northwest corner of the existing Office Depot, and the General Technology Building to the east discharges their routed flow at the southeast corner of future Tract 3A3A3. Based upon the approved Drainage Management Plan, this site is allowed to discharge .1 CFS per acre in developed conditions. Since our improvements are consistent with developed condition assumptions within the Tract 3 Master Drainage Plan this site should be allowed to discharge .587 CFS to the existing storm drain system.



CITY OF
Albuquerque

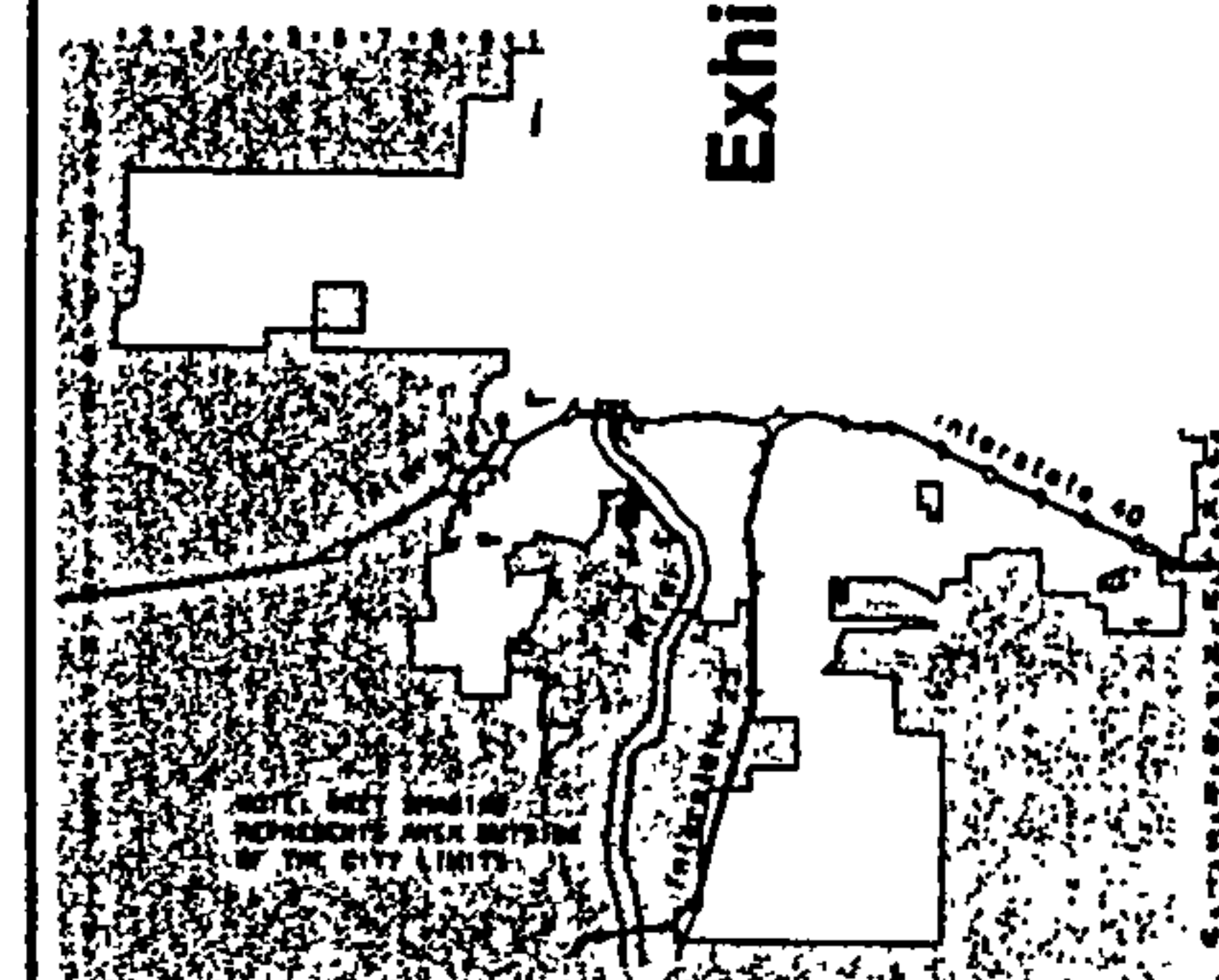
Albuquerque Geographic Information System
PLANNING DEPARTMENT

© Copyright 1999



Exhibit A- Vicinity Map

GRAPHIC



Zone Atlas Page
F-16-Z

Map Amended through
September 14, 1999

EXISTING CONDITIONS

The site slopes from north to south, with general grades between 3-4%. The site was rough graded with the construction of the Renaissance Center. During the development of Tract 3-B (Office Depot) a series of temporary detention ponds were constructed around the site. A 6" conduit and a temporary retention pond were constructed at the south edge of Tract 3A3A1. The adjacent Tract 3A-3A3 was recently developed and the flows were diverted and discharged at a rate of .1 CFS per acre. A retention pond was constructed at the midpoint of the southern boundary to collect the undeveloped middle portions of this tract. No offsite flows enter this site from the adjacent properties or rights-of way. Map pocket A contains the grading plans for Tract 3A1 (Office Depot) and Tract 3A-3A (Harrison Building).

PROPOSED CONDITIONS

The proposed improvements consist of the construction of a 40,097 square foot office/warehouse to be utilized by Federal Express Ground Service. These improvements will encompass both Tracts 3A-3A-1 and 3A-3A-2. The building will be located on Tract 3A-3A-2 and tract 3A-3A-1 will be utilized as a ponding area. As shown on the Tract 3 basin map (map pocket B) Tract 3A3A1 and 3A-3A-2 is located within Basin 15,12 and 16. From the Overall Drainage Master plan basin 15 is allowed to discharge .354 CFS. The proposed grading plan will divert all of the onsite flow to a detention pond located at the southwest corner of the site. A copy of the proposed grading plan is located within map pocket C. Since this outlet pipe is existing and was sized to accommodate the flows from overall basin 15 only, our overall site discharge will be limited to .354 CFS.

As shown on the Onsite Drainage Basin Map (Exhibit B) the site is broken into 16 drainage basins. Basins B1-I drain to open grated manholes and are conveyed via underground conduit to the proposed detention pond. Basin A1-A5, J and K drains via surface flow to the same

detention pond. As shown in appendix B, the grated inlet, underground conduits and rundowns have been sized to accommodate the predicted peak discharge for a 100-year, 6-hour storm event. The detention pond will have a 3" orifice plate installed at the outlet to restrict the flow to 0.324 CFS. This pond has been sized to contain the entire volume that would be produced by a 100-year, 24-hour storm event. The analysis of the pond geometry and function is included within Appendix B. The flow leaving Tract 3A3A1 discharges via the existing 6" pipe, which is connected to the existing storm, drain system. The existing storm drain located at the northeast corner of the existing Office Depot captures the access roadway discharge. In a storm event greater than the predicted 100-year storm, all pond will overflow and spill to the adjacent roadways.

SUMMARY AND RECOMMENDATIONS

This site is an existing parcel within the Renaissance Center. The City of Albuquerque Hydrology Section approved the drainage management plan for the entire Tract 3, which our site is a portion of. The master drainage plan allows for a peak discharge rate of 0.1 CFS per acre for the fully developed condition. Since we are including the entire site within basin 15, we are limiting our discharge to the allowable discharge of this basin. The proposed improvements will discharge a peak flow less than the allowed rate. The development of this site is consistent with the DPM, Chapter 22, Hydrology section. Since this site encompasses more than 5 acres, a NPDES permit is required prior to any construction activity. No improvements are to occur within City right of way; therefore an infrastructure list is not required. It is recommended this development be approved for rough grading, and Site Plan for Building Permit.

APPENDIX A
SITE HYDROLOGY

Weighted E Method

Developed Basins

Basin	Area (sq. ft)	Area (acres)	Treatment A		Treatment B		Treatment C		Treatment D		100-Year, 6-hour Storm			
			%	(acres)	%	(acres)	%	(acres)	%	(acres)	Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs	
A1	39338	0.90	0%	0	15.0%	0.135	25.0%	0.22577	60.0%	0.542	1.530	0.115	3.29	
A2	2308	0.05	0%	0	0.0%	0.000	5.0%	0.00265	95.0%	0.050	1.921	0.008	0.23	
A3	2291	0.05	0%	0	0.0%	0.000	5.0%	0.00263	95.0%	0.050	1.921	0.008	0.23	
A4	2482	0.06	0%	0	0.0%	0.000	5.0%	0.00285	95.0%	0.054	1.921	0.009	0.24	
A5	1536	0.04	0%	0	0.0%	0.000	5.0%	0.00176	95.0%	0.033	1.921	0.006	0.15	
B1	3932	0.09	0%	0	5.0%	0.005	10.0%	0.00903	85.0%	0.077	1.807	0.014	0.37	
B	7337	0.17	0%	0	0.0%	0.000	10.0%	0.01684	90.0%	0.152	1.872	0.026	0.71	
C	7814	0.18	0%	0	0.0%	0.000	10.0%	0.01794	90.0%	0.161	1.872	0.028	0.76	
D	8407	0.19	0%	0	0.0%	0.000	10.0%	0.0193	90.0%	0.174	1.872	0.030	0.81	
E	1663	0.04	0%	0	10.0%	0.004	20.0%	0.00764	70.0%	0.027	1.644	0.005	0.15	
F	2945	0.07	0%	0	10.0%	0.007	25.0%	0.0169	65.0%	0.044	1.595	0.009	0.25	
G	3103	0.07	0%	0	5.0%	0.004	10.0%	0.00712	85.0%	0.061	1.807	0.011	0.29	
H	4194	0.10	0%	0	0.0%	0.000	10.0%	0.00963	90.0%	0.087	1.872	0.015	0.41	
I	3930	0.09	0%	0	0.0%	0.000	10.0%	0.00902	90.0%	0.081	1.872	0.014	0.38	
J	74343	1.71	0%	0	15.0%	0.256	20.0%	0.34134	65.0%	1.109	1.579	0.225	6.35	
K	71998	1.65	0%	0	40.0%	0.661	50.0%	0.82642	10.0%	0.165	0.960	0.132	4.44	
TOTAL		5.46		0.000		1.071		1.517		2.867		0.656	19.056	

Equations:

Weighted E = $E_a \cdot A_a + E_b \cdot A_b + E_c \cdot A_c + E_d \cdot A_d / (\text{Total Area})$

Volume = Weighted D * Total Area

Flow = $Q_a \cdot A_a + Q_b \cdot A_b + Q_c \cdot A_c + Q_d \cdot A_d$

Where

0.53	Qa=	1.56
0.78	Qb=	2.28
1.13	Qc=	3.14
2.12	Qd=	4.70

These equations and values taken from the Alb. DPM Section 22 (Hydrology)
The values utilized are for area 2 which lies between San Mateo and the Rio Grande., The same Isopluvials are shown in this area of Los Lunas

Volumes for 100-year, 24-hour storms

Hydraulic quantities for strucures

Structure	Contributing Basin		
AP1	B1+B+C+D+E+F+G+H	=	3.75 CFS
AP2	B1+B+C+D+E+F+G	=	3.35 CFS
AP3	B1+B+C+D+E	=	2.80 CFS
CHANNEL 1	A2	=	0.23 CFS
CHANNEL 2	A3	=	0.23 CFS
CHANNEL 3	A4	=	0.24 CFS
CHANNEL 4	A5	=	0.15 CFS
CHANNEL 5	A2+A3+A4+A5+A1	=	4.14 CFS
CHANNEL 6	A2+A3+A4+A5+A1+J	=	10.86 CFS

APPENDIX B

HYDRAULIC ANALYSIS

VOLUME CALCULATIONS

FEDERAL EXPRESS GROUND POND

Ab - Bottom Of The Pond Surface Area

At - Top Of The Pond Surface Area

D - Water Depth

Dt - Total Pond Depth

C - Change In Surface Area / Water Depth

$$\text{Volume} = \text{Ab} * \text{D} + 0.5 * \text{C} * \text{D}^2$$

$$\text{C} = (\text{At} - \text{Ab}) / \text{Dt}$$

$$\text{Ab} = 15,429.00$$

$$\text{At} = 20,919.00$$

$$\text{Dt} = 2.00$$

$$\text{C} = 2745.00$$

ACTUAL ELEV.	DEPTH (FT)	VOLUME (AC-FT)	Q (CFS)
37	0	0	0.0000
37.50	0.5	0.1771	0.1447
38.00	1	0.3621	0.2211
38.50	1.5	0.5628	0.2772
39.00	2	0.7793	0.3236

Orifice Equation

$$Q = \text{CA} \text{ SQR}^{\wedge}$$

$$\text{C} = 0.6$$

$$\text{Diameter (in)} = 3$$

$$\text{Area (ft}^2\text{)} = 0.04908739$$

$$g = 32.2$$

$$\text{H (Ft)} = \text{Depth of water above center of orifice}$$

$$\text{Q (CFS)} = \text{Flow}$$

RUNDOWN ANALYSIS

Weir Equation:

$$Q = CLH^{3/2}$$

Q = flow (cfs)

C = 2.75

H = Curb Height (ft)

L = width of opening

Channel # 1 (24" wide)

$$Q_{\max} = 2.75(2)(.5)^{3/2} = 1.94 \text{ cfs}$$

$$Q_{\text{req}} = .23 \text{ cfs}$$

Channel # 2 (24" wide)

$$Q_{\max} = 2.75(2)(.5)^{3/2} = 1.94 \text{ cfs}$$

$$Q_{\text{req}} = .23 \text{ cfs}$$

Channel # 3 (24" wide)

$$Q_{\max} = 2.75(2)(.5)^{3/2} = 1.94 \text{ cfs}$$

$$Q_{\text{req}} = .24 \text{ cfs}$$

Channel # 4 (24" wide)

$$Q_{\max} = 2.75(2)(.5)^{3/2} = 1.94 \text{ cfs}$$

$$Q_{\text{req}} = .15 \text{ cfs}$$

Channel # 5 (5' wide)

$$Q_{\max} = 2.75(5)(.5)^{3/2} = 4.86 \text{ cfs}$$

$$Q_{\text{req}} = 4.14 \text{ cfs}$$

Channel # 6 (8' wide)

$$Q_{\max} = 2.75(8)(.67)^{3/2} = 1.94 \text{ cfs}$$

$$Q_{\text{req}} = 12.06 \text{ cfs}$$

Pipe Capacity

Pipe	D	Slope	Area	R	Q Provided	Q Required	Velocity
	(in)	(%)	(ft^2)		(cfs)	(cfs)	(ft/s)
AP1	18	0.5	1.77	0.375	3.87	3.75	2.12
AP2	18	0.5	1.77	0.375	3.87	3.35	1.90
AP3	18	0.5	1.77	0.375	3.87	2.80	1.58

Manning's Equation:

$Q = 1.49/n \cdot A \cdot R^{2/3} \cdot S^{1/2}$

A = Area

R = D/4

S = Slope

n = 0.025

MAP POCKET A

ADJOINING PROPERTY GRADING PLANS

MAP POCKET B
TRACT 3 BASIN MAP

MAP POCKET C

TRACT 3A3A-1, 2 GRADING PLAN