

CITY OF ALBUQUERQUE



October 19, 2006

Mr. Martin Garcia, PE
ABQ ENGINEERING
6739 Academy NE, Suite 130
Albuquerque, NM 87109

Re: POLYFLOW MANUFACURING
10800 Gibson Avenue SE
Approval of Permanent Certificate of Occupancy (C.O.)
Engineer's Stamp dated 12/09/2006 (M-21/D7A1)
Certification dated 10/06/2005

Dear Martin:

P.O. Box 1293

Based upon the information provided in your submittal received 10/18/2006, the above referenced certification is approved for release of Permanent Certificate of Occupancy by Hydrology.

Albuquerque

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

New Mexico 87103

Sincerely,

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

www.cabq.gov

C: CO Clerk
File

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/28/2003rd)

PROJECT TITLE: Polyflow Manufacturing M-21/D7A1
DRB #: _____ EPC#: _____

ZONE MAP/DRG. FILE #: M-21/D29 ^{D7A1}
WORK ORDER#: _____

LEGAL DESCRIPTION: _____
CITY ADDRESS: 10800 Gibson Ave. S.E.

ENGINEERING FIRM: ABQ Engineering
ADDRESS: 6739 Academy NE Suite 130
CITY, STATE: Albuquerque

CONTACT: Martin J. Garcia
PHONE: 255-7802
ZIP CODE: 87109

OWNER: Shaw, Mitchell, and Mallory Partnership
ADDRESS: 1110 Pennsylvania ST NE
CITY, STATE: Albuquerque, NM

CONTACT: _____
PHONE: _____
ZIP CODE: 87110

ARCHITECT: JLS Architects
ADDRESS: 1600 Rio Grande NW
CITY, STATE: Albuquerque, NM

CONTACT: Joe Slagle
PHONE: 246-0870
ZIP CODE: 87104

SURVEYOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

CONTRACTOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

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:

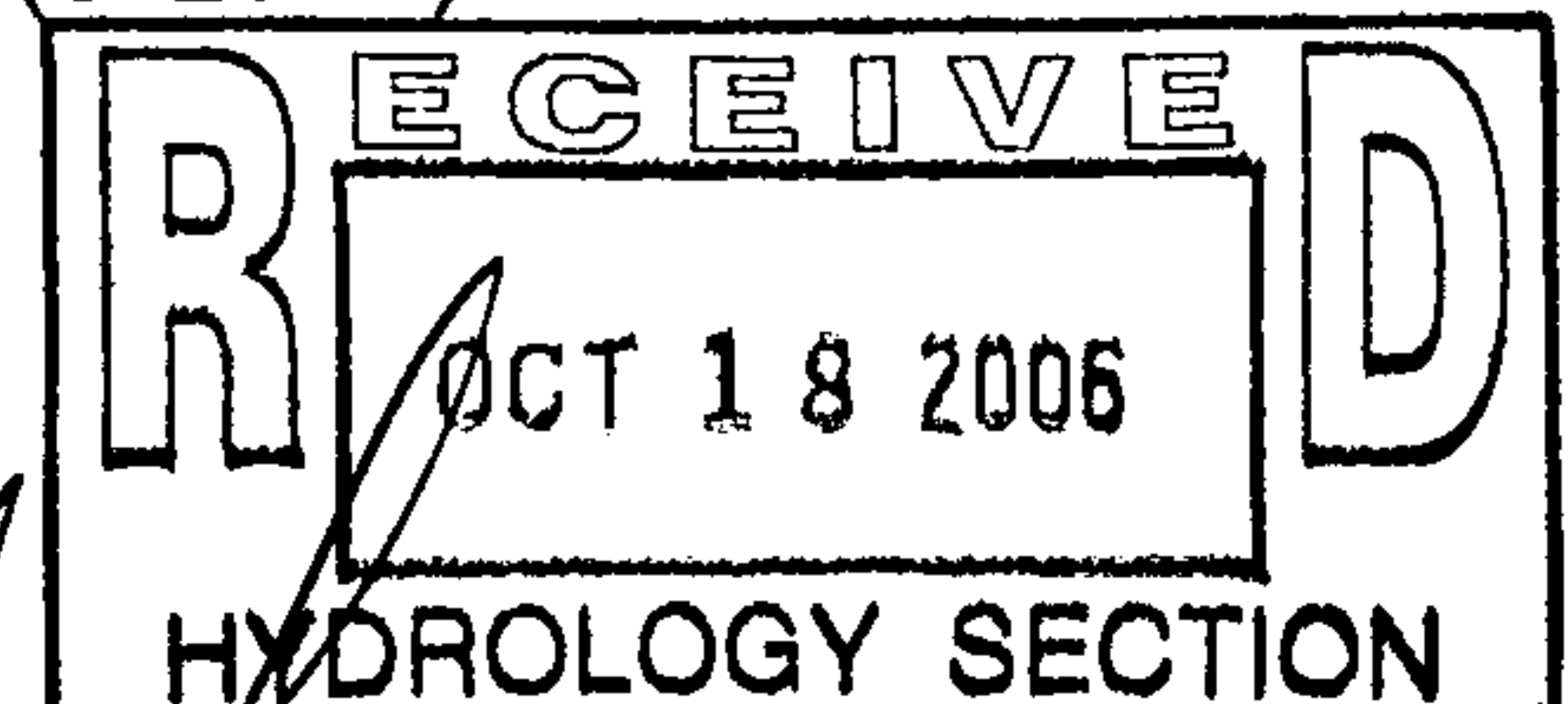
- ☐ SIA / FINANCIAL GUARANTEE RELEASE
- ☐ PRELIMINARY PLAT APPROVAL
- ☐ S. DEV. PLAN FOR SUB'D. APPROVAL
- ☐ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
- ☐ SECTOR PLAN APPROVAL
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- ☒ CERTIFICATE OF OCCUPANCY (PERM.)
- ☐ CERTIFICATE OF OCCUPANCY (TEMP.)
-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

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ☐ YES
- ☒ NO
- ☐ COPY PROVIDED

DATE SUBMITTED: October 18, 2006

BY: [Signature]



Requests for approvals of Site Development Plans and/or Subdivision Plans 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.

October 18, 2006

Ms. Arlene Portillo
City of Albuquerque Development Services
600 Second Street SW
Albuquerque, NM 87102

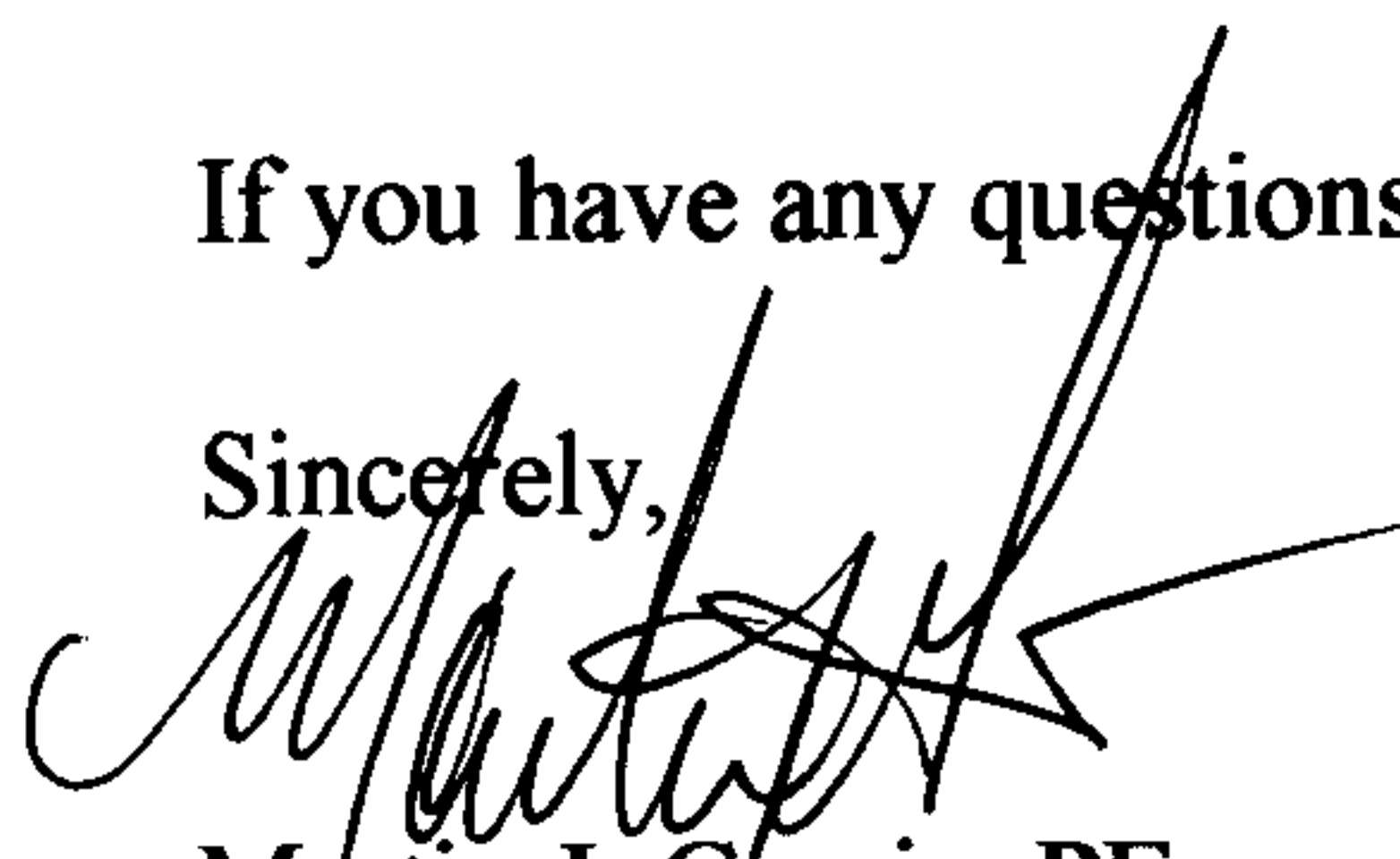
RE: Ktech Polyflow manufacturing as built Grading and drainage plan

Dear Ms. Portillo:

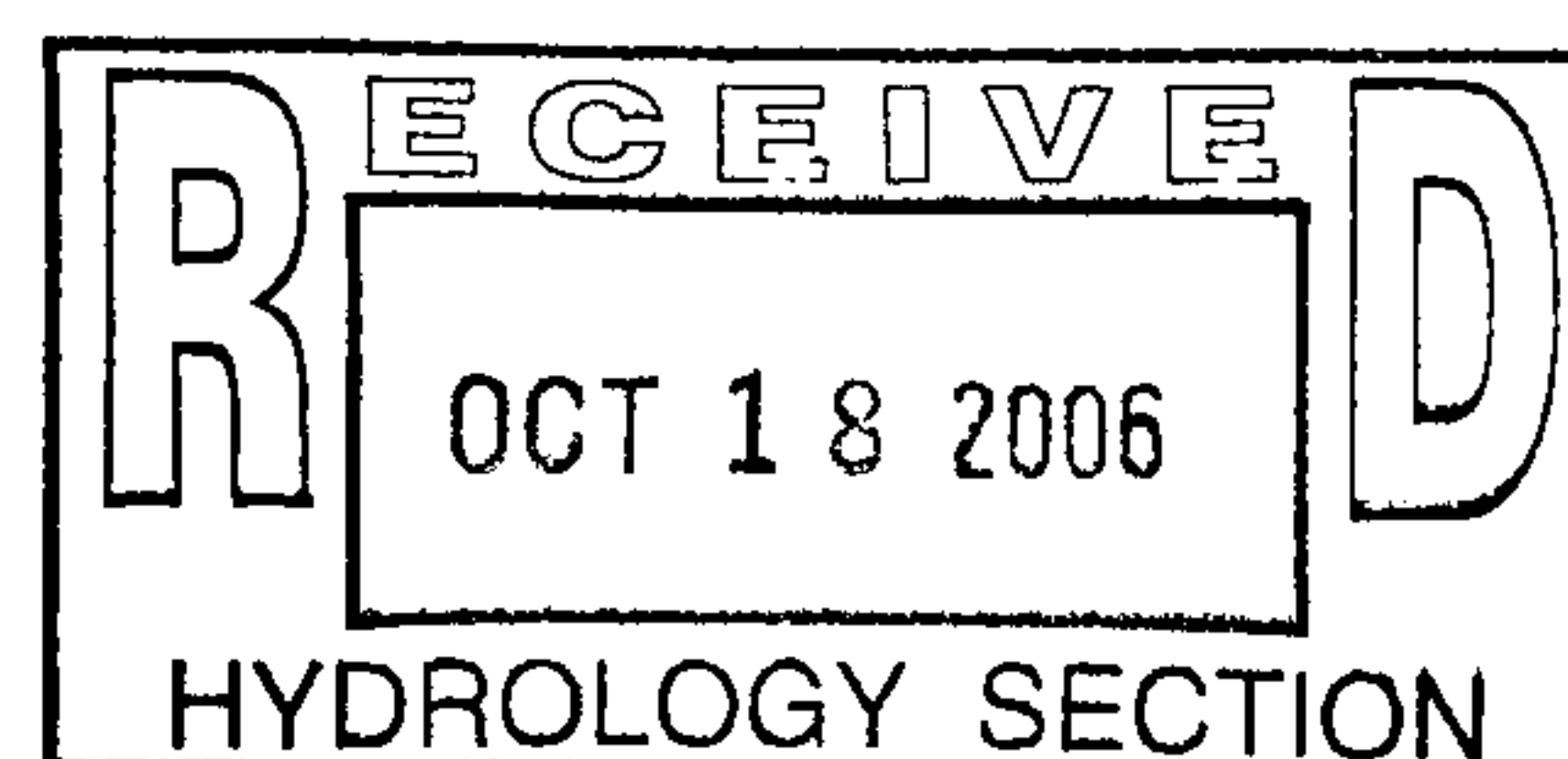
I am in receipt of your letter dated October 13, 2006 for this project and have addressed the requirements of your letter. The plan has been stamped with the original approval date as well as the revision date. As we discussed on the telephone, the sheet was revised to reflect the as built conditions, which were too numerous to include in the original plan.

If you have any questions or require additional information, please call me at 255-7802

Sincerely,



Martin J. Garcia, PE
ABQ Engineering, Inc.
25063



CITY OF ALBUQUERQUE



October 13, 2006

Mr. Martin J. Garcia, PE
ABQ ENGINEERING
6739 Academy Rd. NE, Suite 130
Albuquerque, NM 87109

Re: POLYFLOW MANUFACTURING (M-21/D7A1)
10800 Gibson Blvd. SE
Request for Permanent Certificate of Occupancy (C.O.)

Dear Martin:

Based upon the information provided in your submittal received 10/13/2006, the above referenced Certification cannot be approved until the following are addressed:

1. The approved Grading and Drainage (G/D) Plan has an Engineer Stamp date of 12/09/2005. The submittal does not have an original Engineer's Stamp with a date. Attached is a copy of the G/D approval letter and a copy of the bottom right hand corner the approved G/D Plan.

Thank you, and if you have any questions, please do not hesitate to call me at 924-3982.

Sincerely,

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

Attachments

C: file

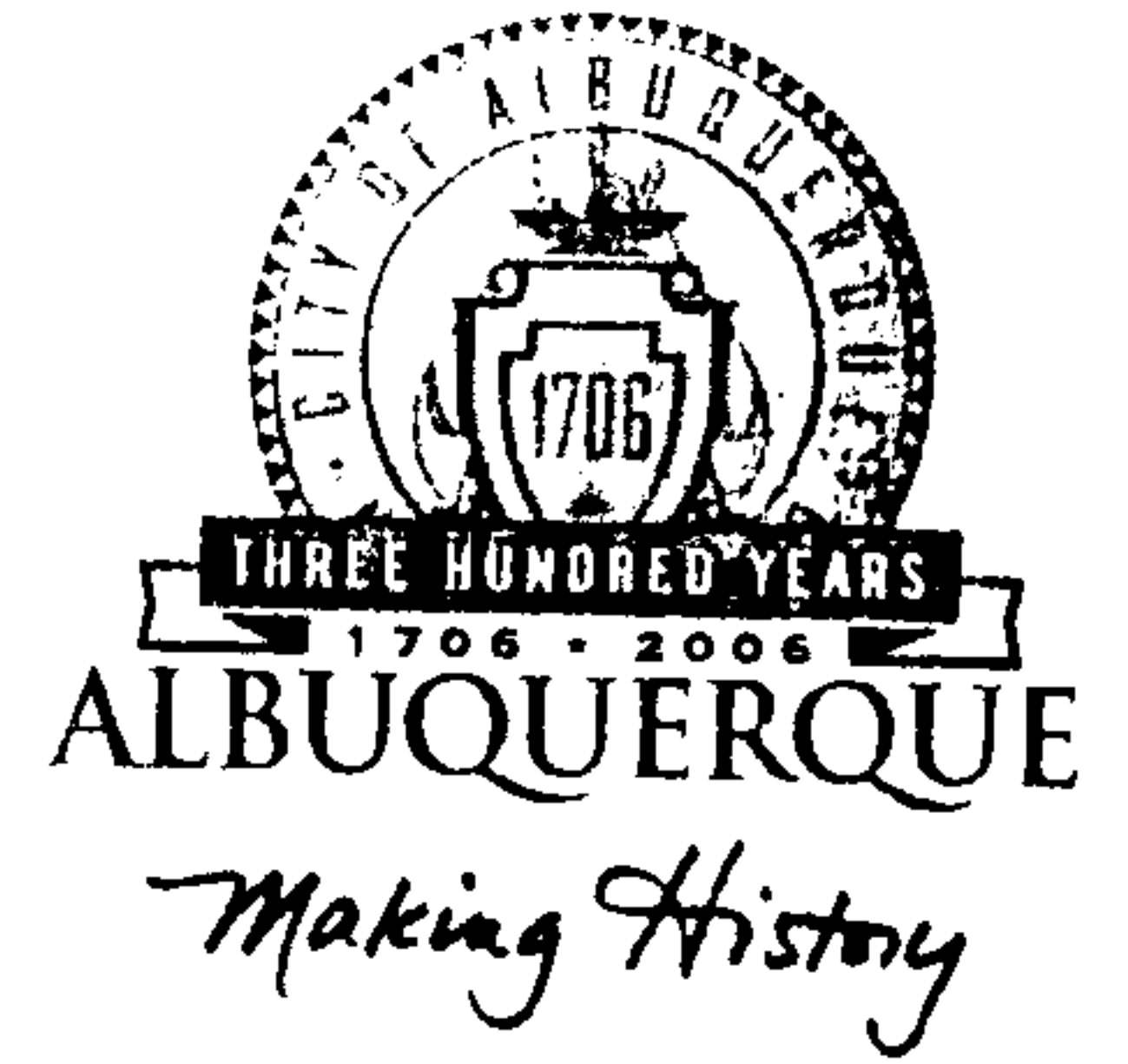
P.O. Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

CITY OF ALBUQUERQUE



August 8, 2005

Martin Garcia, P.E.
ABQ Engineering
6739 Academy Rd. Suite 130 NE
Albuquerque, NM 87109

Re: Polyflow Manufacturing, Grading and Drainage Report
Engineer's Stamp dated 7-25-05 (M21-D7A1)

Dear Mr. Garcia,

Based upon the information provided in your submittal received 7-26-05, the above referenced plan is approved for Building Permit. Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology. Prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required.

P.O. Box 1293

This project requires a National Pollutant Discharge Elimination System (NPDES) permit. If you have any questions regarding this permit please feel free to call the DMD Storm Drainage Design section at 768-3654 (Charles Caruso).

Albuquerque

If you have any questions, you can contact me at 924-3981.

New Mexico 87103

Sincerely,

Kristal D. Metro, P.E.
Senior Engineer, Planning Dept.
Development and Building Services

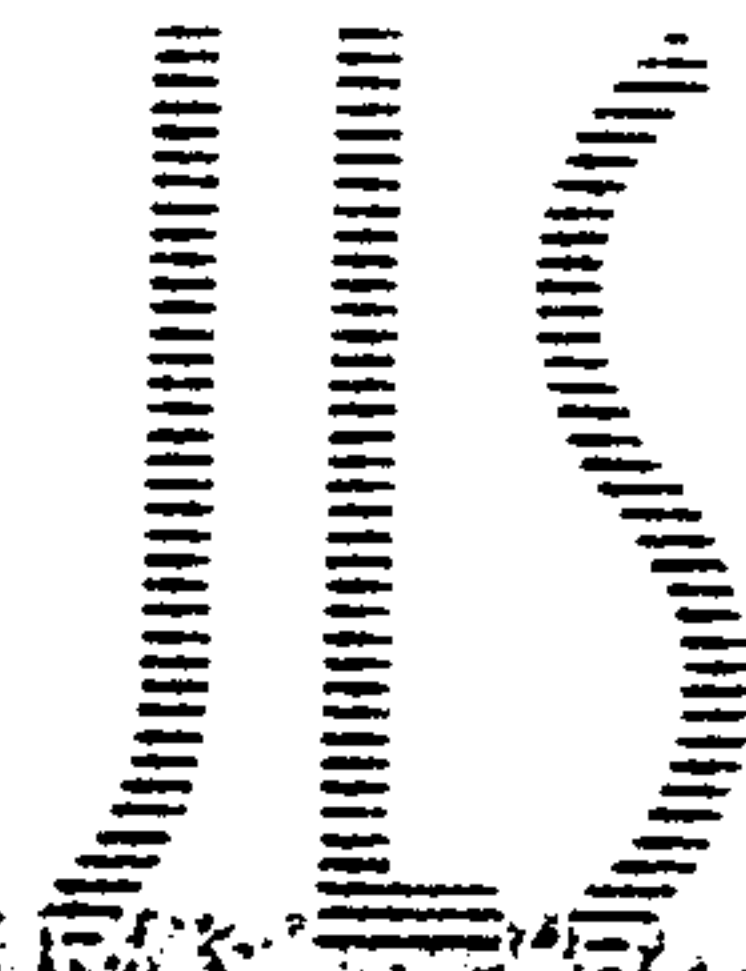
www.cabq.gov

C: Charles Caruso, DMD Storm Drainage Design
File

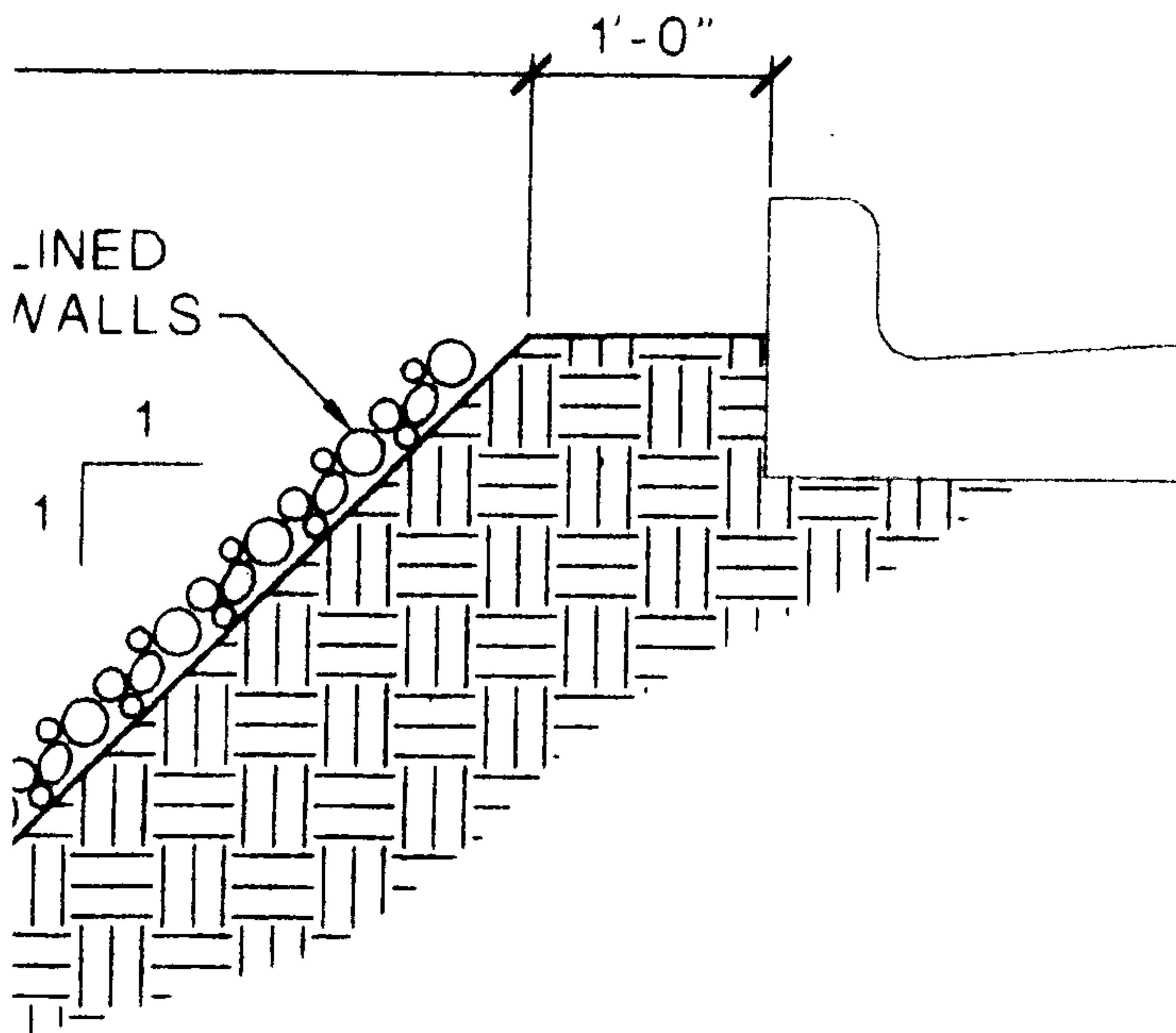
M DRAIN
ITOURS
T ELEVATION



SANDIA SCIENCE &
TECHNOLOGY PARK



ALK
E ELEVATION
ON
FLOW
ING



1600 rio grande nw
albuquerque
new mexico 87104
505 246 0870
fax 505 246 0437

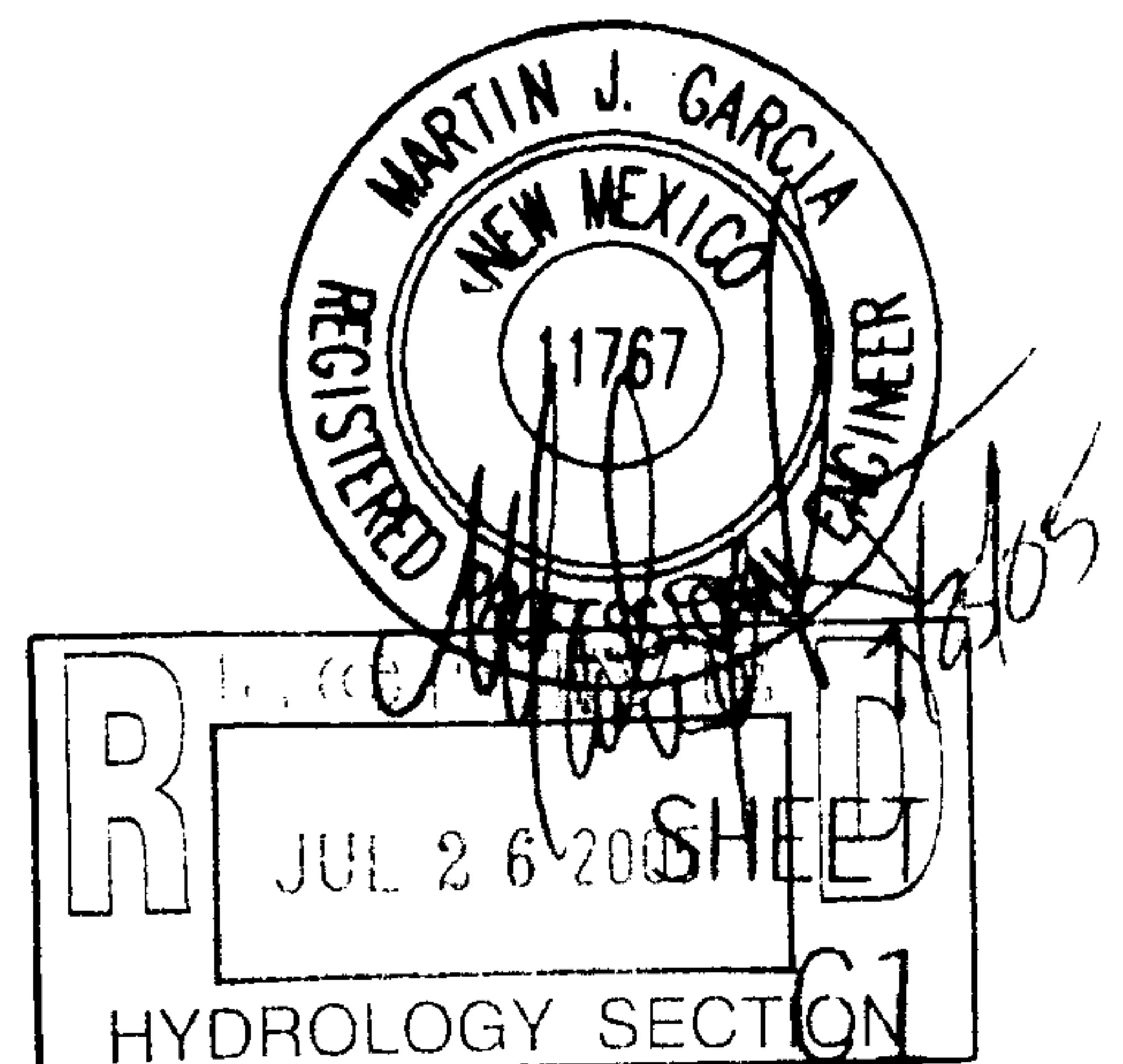
Grading Plan

REVISIONS

ARCHITECT

ENGINEER

DATE
5-4-05



3
C1

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/28/2003rd)

PROJECT TITLE: Polyflow Manufacturing
DRB #: _____ EPC#: _____

ZONE MAP/DRG. FILE #: M-21/DTA1
WORK ORDER#: _____

LEGAL DESCRIPTION: _____
CITY ADDRESS: _____

ENGINEERING FIRM: ABQ Engineering
ADDRESS: 6739 Academy NE Suite 130
CITY, STATE: Albuquerque

CONTACT: Martin J. Garcia
PHONE: 255-7802
ZIP CODE: 87109

OWNER: Shaw, Mitchell, and Mallory Partnership
ADDRESS: 1110 Pennsylvania ST NE
CITY, STATE: Albuquerque, NM

CONTACT: _____
PHONE: _____
ZIP CODE: 87110

ARCHITECT: JLS Architects
ADDRESS: 1600 Rio Grande NW
CITY, STATE: Albuquerque, NM

CONTACT: Joe Slagle
PHONE: 246-0870
ZIP CODE: 87104

SURVEYOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

CONTRACTOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

CHECK TYPE OF SUBMITTAL:

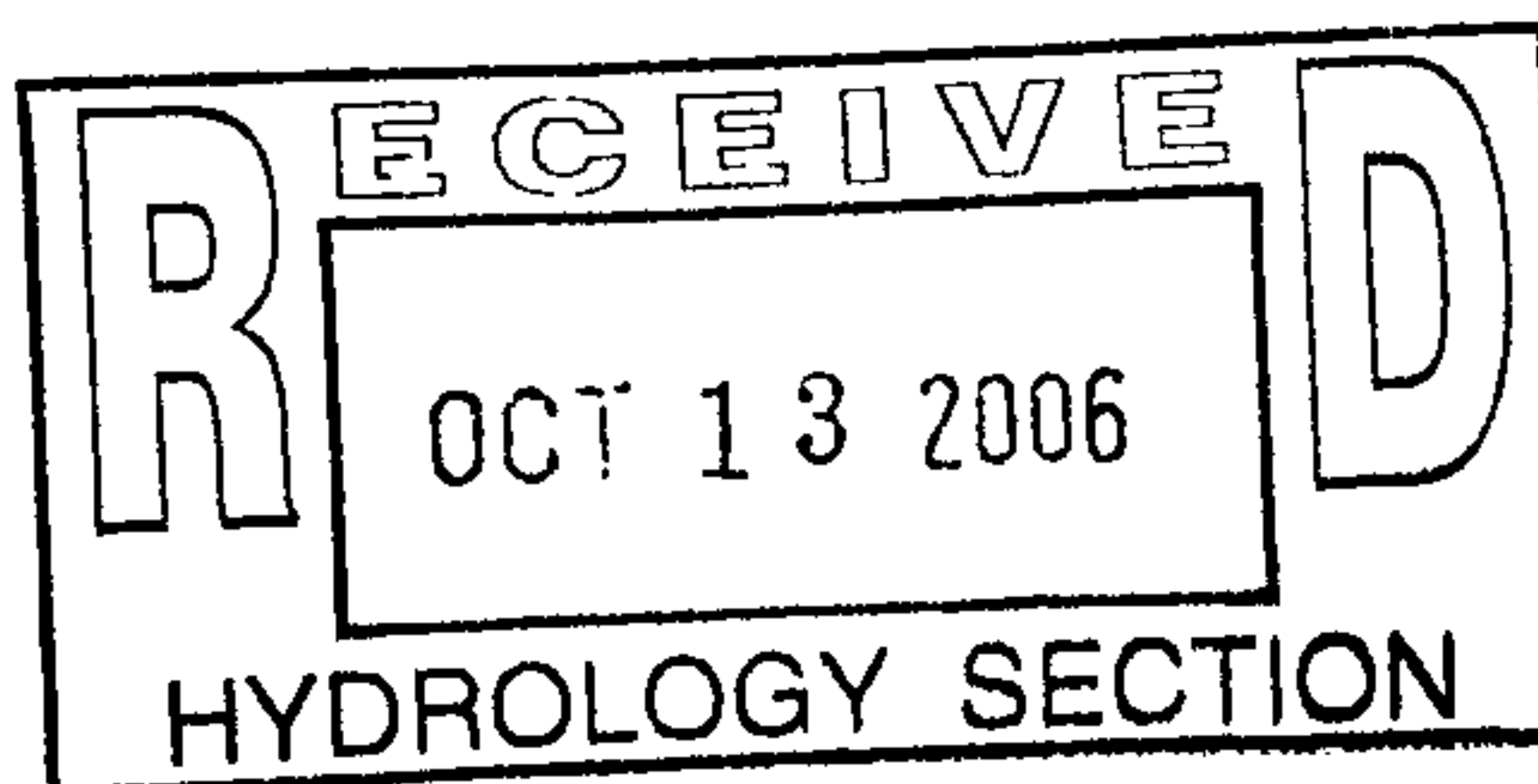
- ☐ DRAINAGE REPORT
- ☐ DRAINAGE PLAN 1st SUBMITTAL, **REQUIRES TCL or equal**
- ☐ DRAINAGE PLAN RESUBMITTAL
- ☐ CONCEPTUAL GRADING & DRAINAGE PLAN
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- ☐ PAVING PERMIT APPROVAL
- ☐ WORK ORDER APPROVAL
- ☐ OTHER (SPECIFY)

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ☐ YES
- ☒ NO
- ☐ COPY PROVIDED



DATE SUBMITTED: October 6, 2006

BY: Martin J. Garcia

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.

October 6, 2006

Mr. Brad Bingham
City of Albuquerque Development Services
600 2nd Street NW
Albuquerque, NM 87102

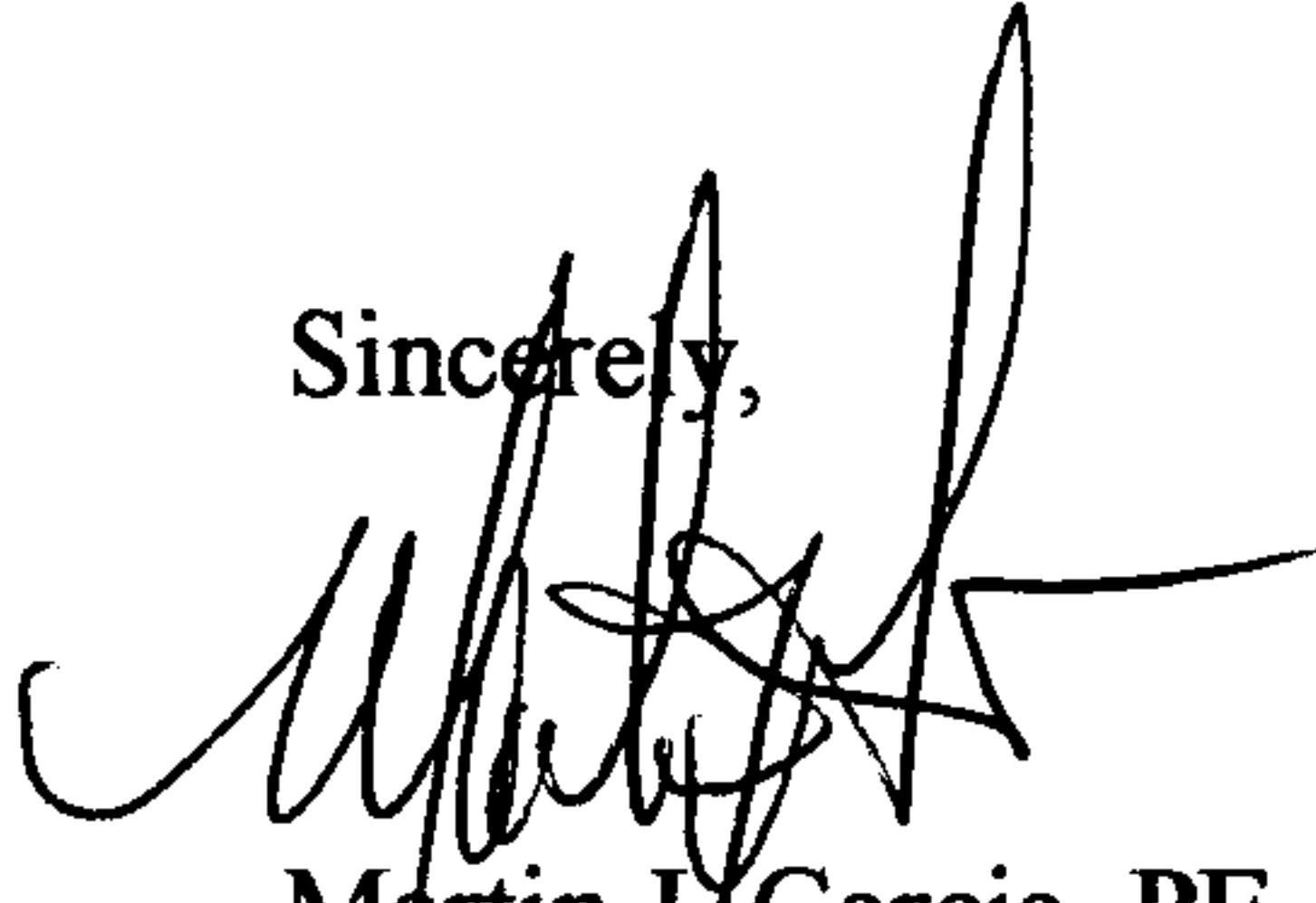
RE: AS built Grading and Drainage Plan for Polyflow Manufacturing

Mr. Bingham:

Enclosed is one blueline copy of the as built Grading and Drainage Plan Polyflow Manufacturing for your approval and issuance of Certificate of Occupancy. Please note that only the first phase of construction was built and as such this certification addresses only the first phase. The ponds that were constructed adequately accommodate the flows associated from the first phase, but are not large enough to accommodate the second phase of construction.

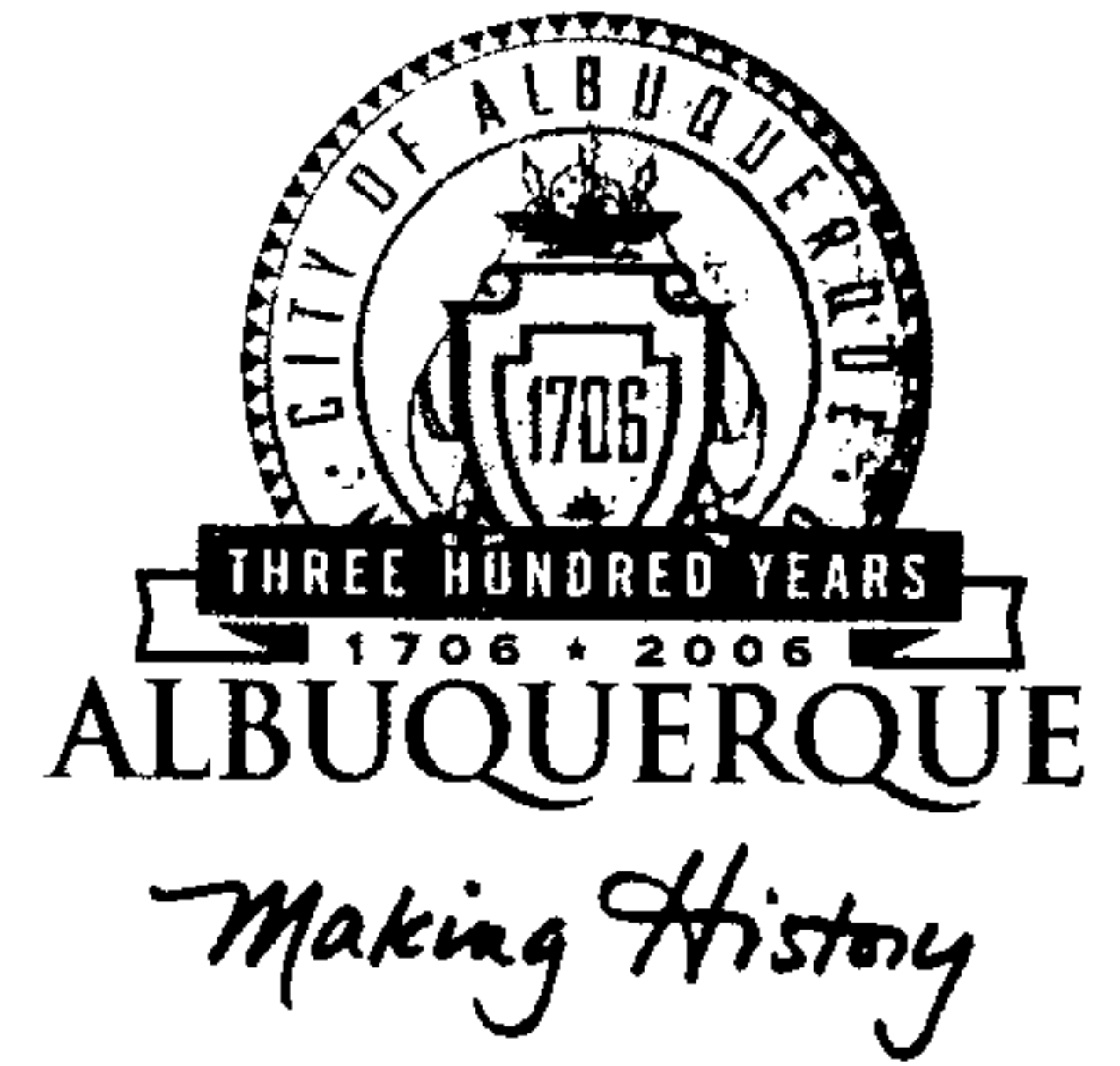
Please call me at 255-7802 if you have any questions or require additional information.

Sincerely,



Martin J. Garcia, PE
ABQ Engineering, Inc.
25063

CITY OF ALBUQUERQUE



August 8, 2005

Martin Garcia, P.E.
ABQ Engineering
6739 Academy Rd. Suite 130 NE
Albuquerque, NM 87109

**Re: Polyflow Manufacturing, Grading and Drainage Report
Engineer's Stamp dated 7-25-05 (M21-D7A1)**

Dear Mr. Garcia,

Based upon the information provided in your submittal received 7-26-05, the above referenced plan is approved for Building Permit. Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology. Prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required.

This project requires a National Pollutant Discharge Elimination System (NPDES) permit. If you have any questions regarding this permit please feel free to call the DMD Storm Drainage Design section at 768-3654 (Charles Caruso).

If you have any questions, you can contact me at 924-3981.

Sincerely,

Kristal D. Metro, P.E.
Senior Engineer, Planning Dept.
Development and Building Services

C: Charles Caruso, DMD Storm Drainage Design
File

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/28/2003rd)

PROJECT TITLE: Polyflow Manufacturing

DRB #: _____

EPC#: _____

ZONE MAP/DRG. FILE #: M-21/D7A1
WORK ORDER#: _____

LEGAL DESCRIPTION: _____

CITY ADDRESS: _____

ENGINEERING FIRM: ABQ Engineering

ADDRESS: 6739 Academy NE Suite 130

CITY, STATE: Albuquerque

CONTACT: Martin J. Garcia

PHONE: 255-7802

ZIP CODE: 87109

OWNER: Shaw, Mitchell, and Mallory Partnership

ADDRESS: 1110 Pennsylvania ST NE

CITY, STATE: Albuquerque, NM

CONTACT: _____

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ZIP CODE: 87110

ARCHITECT: JLS Architects

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CONTACT: Joe Slagle

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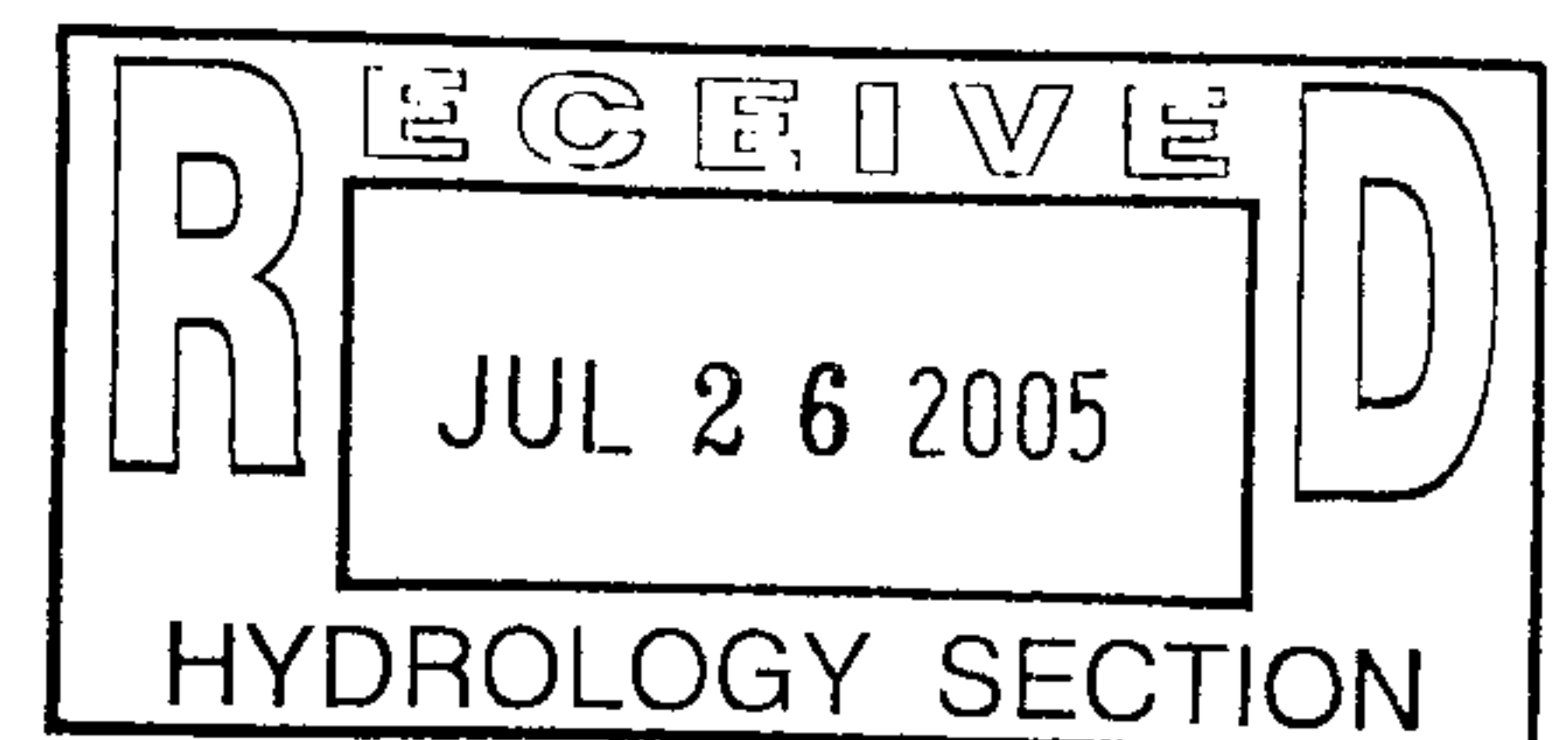
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- ☐ PAVING PERMIT APPROVAL
- ☐ WORK ORDER APPROVAL
- ☐ OTHER (SPECIFY)

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ☐ YES
- ☒ NO
- ☐ COPY PROVIDED

DATE SUBMITTED: _____

BY: 7/26/05



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(5)

acres.

July 25, 2005

Mr. Brad Bingham
Principal Engineer, Planning Department
Development and Building Services
600 Second Street NW
Albuquerque, NM 87102

RE: Polyflow Manufacturing, Grading and Drainage plan and report
Engineer's stamp dated 6-02-05 (M21-D7A1)

Dear Mr. Bingham,

I am in receipt of your comments dated June 7, 2005 for this project. Enclosed is the revised Grading and Drainage plan and Drainage report for your review and approval. we have the following responses to offer:

1. **The edge of curb cannot be at a higher elevation than the retaining wall. Extend the retaining wall to the same elevation, and place fill in between the curb and the wall.**

The retaining walls have been removed and replaced with a rock slope. The grading as shown on the revised plan should work.

- ✓ 2. **Specify the size of the proposed curb cuts.**
The dimensions for the curb cuts have been added to the plan.

3. **Since ponds 1 and 2 are not connected, please specify the quantity of flow that enters each pond.**

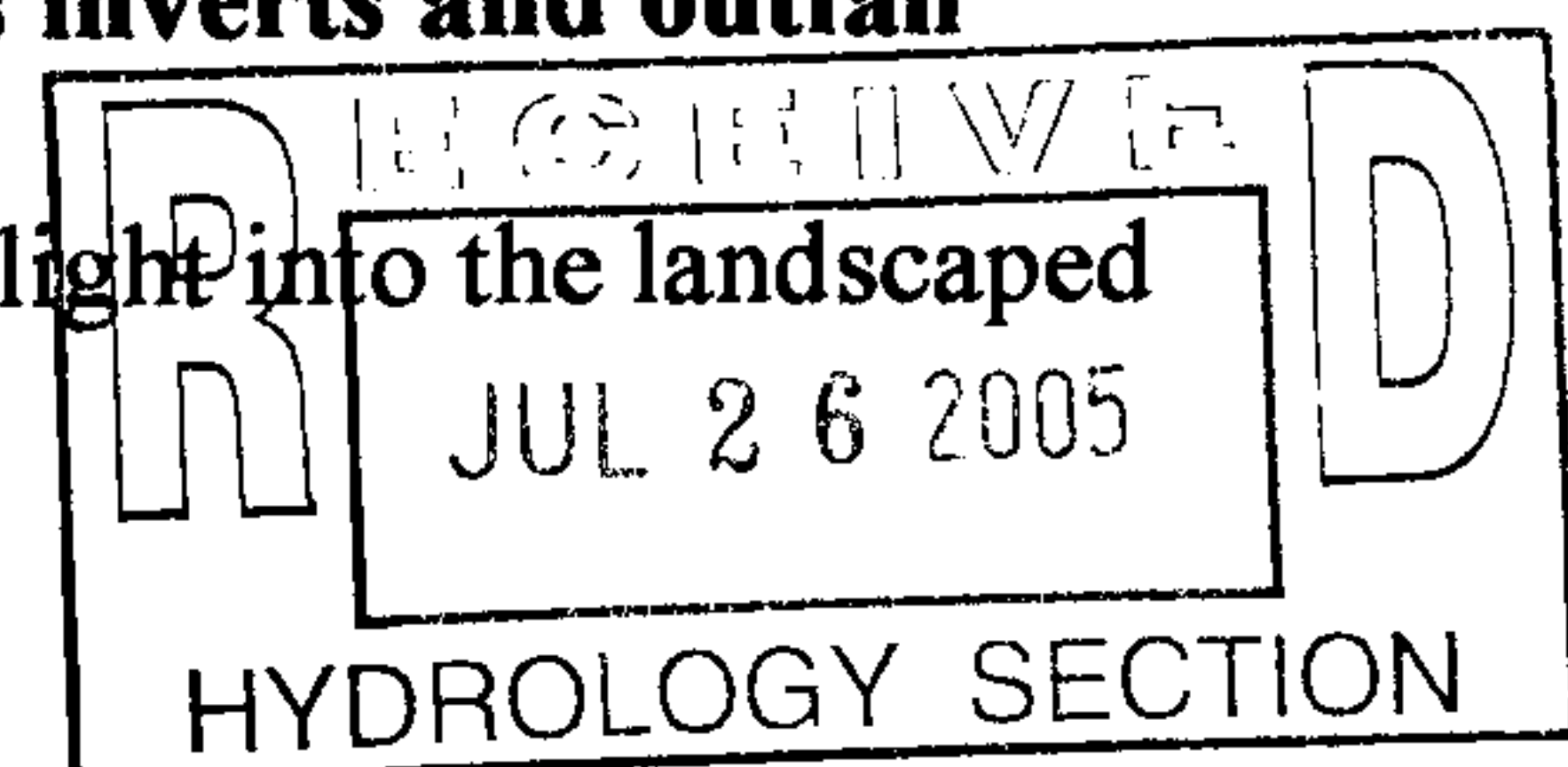
The flow to each pond is identified in the drainage report.

- ✓ 4. **Why are no calculations shown for pond 3?**
Pond 3 was considered as part of pond 1 due to the connection with the 12" cmp. The plan has been re-labeled.

5. **Provide inverts for all propose drainage structures.**
Inverts have been added.

- ✓ 6. **The sump drains, located at each dock, appear to connect to storm drain. Please specify the size of these storm drains, as well as inverts and outfall information.**

The sump drains will connect to a drain line that will daylight into the landscaped area as shown.



7. **According to AHYMO User's Manual , when using the ROUTE RESERVOIR command, "the first line of the outflow-storage table must have 0.0 values for outflow and storage.**

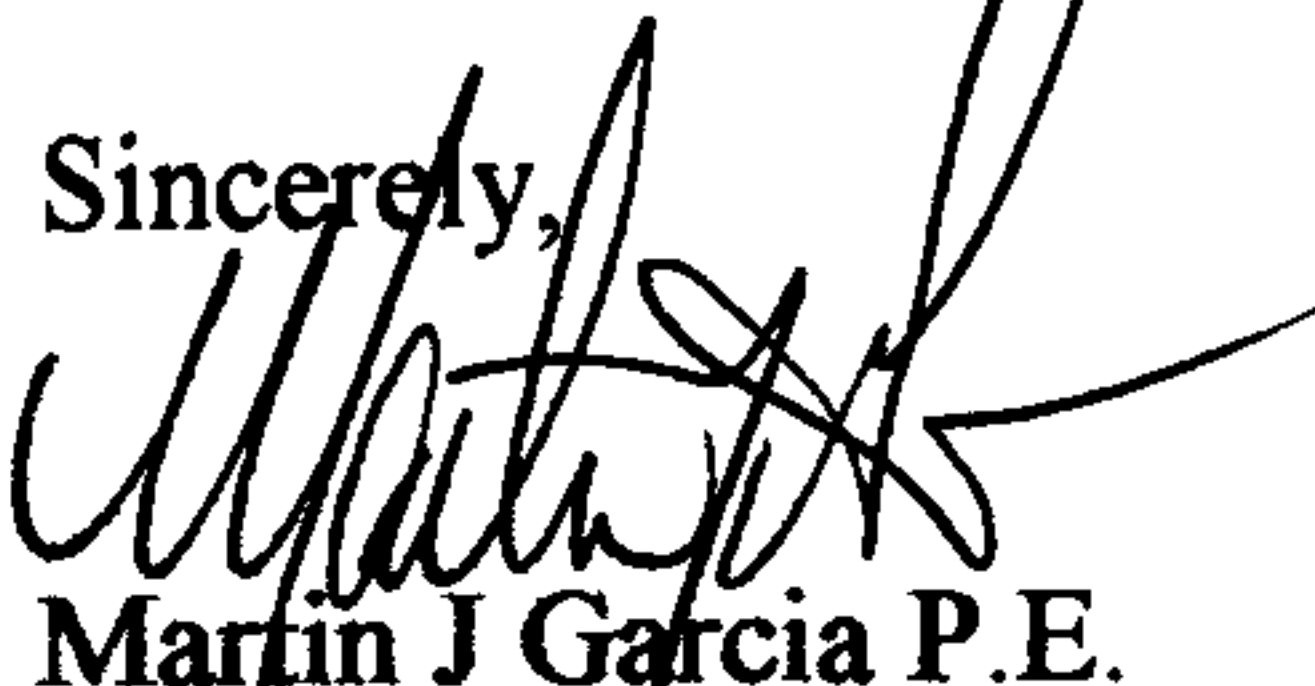
The AHYMO programming information has been corrected.

8. **The pond detail refers to the width of the pond as "varies". Please provide more information.**

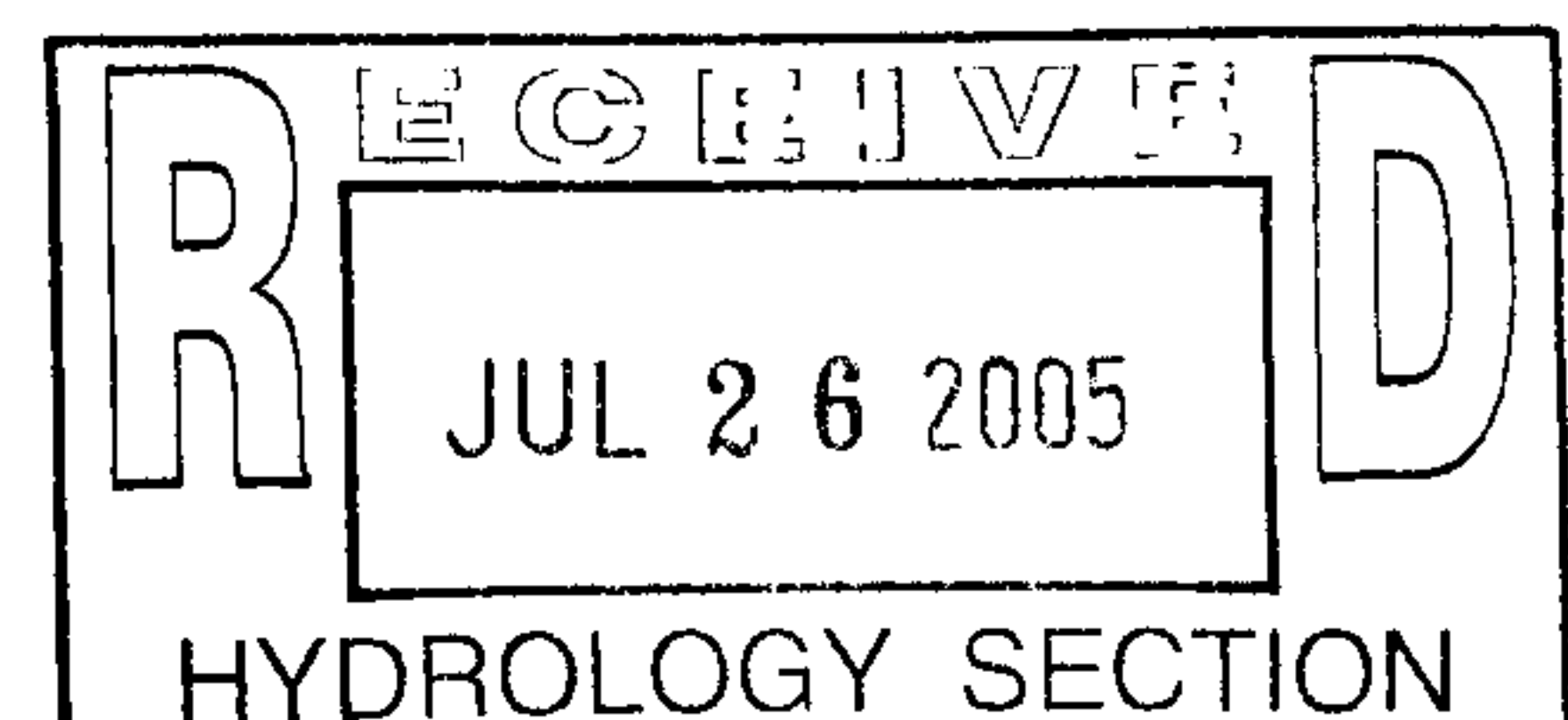
The ponds width varies as it follows the sidewalk. The pond capacities have been shown on the AHYMO calculations are also shown at the end of the drainage report on the pond calculation sheets.

Please call me if there is any additional information that you may need. The plan has also been submitted to Bruce Stidworthy at Bohannon Huston for review and approval since the property lies within the Science and Technology Research Park.

Sincerely,



Martin J Garcia P.E.
ABQ Engineering, Inc
25063



B1 41.7 Ac $Q_{100} = 176$ cfs Exist

DRAINAGE REPORT

FOR

Polyflow Engineering

LOT 9 AND 10

SCIENCE AND TECHNOLOGY PARK

ZONE ATLAS PAGE M-21

ALBUQUERQUE, NEW MEXICO

July 25, 2005

Prepared By:

ABQ Engineering, Inc.

6739 Academy NE Suite 130

Albuquerque, NM 87109

255-7802 Fax 255-7902



Discharge
limited to
Historic Q values

MP Assumptions

Floor Area $\leq 25\%$ lot area
Landscaping $\geq 15\%$ lot area

85% D
10% C
5% B

TABLE OF CONTENTS

Table of Contents	Page
I. Introduction	3
II. Project Description	3
III. Methodology	3
IV. Drainage Computations	4
V. Infrastructure	4
VI. Summary and Conclusion	4
Appendix A	Calculations, ahymo input and output .
Appendix B	Site Grading and Drainage Plan

I. INTRODUCTION

This report documents the methods used to determine and convey the storm water runoff from the Polyflow Engineering new building site located at the corner of Innovation Parkway and Gibson Blvd to the existing storm drain system in Innovation Parkway.

II. PROJECT DESCRIPTION

The site for the new Polyflow Engineering building is a 5.73 acre site located at the southeast corner of Innovation Parkway and Gibson blvd SE. The new building will be built in multiple phases. The existing vacant site generally slopes from East to West and there are no off-site flows to this site. Surrounding properties to the west east and south are vacant land.

III. METHODOLOGY

The hydrology calculations follow the guidelines set forth in Section 22.2 of the Albuquerque Development Process Manual (DPM). The 100yr-24 hour storm was used to compute runoff quantities. The site is contained within the Science and Technology park Master Drainage plan prepared by Bohannon Huston in September 2001. The Master Drainage plan limits the amount of developed runoff allowed into the storm drain system to 1.57 cfs/acre for the lot and 4.82 cfs/acre for the street for a total of 2.02 cfs/acre. This would translate to an allowable developed discharge of 8.99 cfs for this site. The site will be graded to drain from East to west into three storm drainage ponds, two of which will be connected with a 12" cmp (pond 1), the third will be independent but adjacent (pond 2). Pond 1 will drain into the existing storm drain system via a 12" cmp that will be connected to an existing stub provided with the construction of Innovation Parkway. Pond 2 will drain into the existing storm drain system via a 9" cmp that will be connected to an existing storm drain stub provided with the construction of Innovation Parkway. From the AHYMO results this will allow 8.90 cfs to be control released into the existing storm drain. During the 100yr event, pond 1 will overflow into the parking lot at a water surface elevation of 95.32.

IV. DRAINAGE COMPUTATIONS

The proposed development is within Precipitation Zone 2. The Land Treatment Area for the proposed subdivision is as follows:

Type "D"	80%
Type "C"	0%
Type "B"	20%
Type "A"	0%

$$Q_{100}^{Dev} = 25.56 \text{ cfs}$$

The analysis resulted in a developed peak flow of 25.56 cfs. See Attached exhibits.

VI. SUMMARY AND CONCLUSION

The developed flows can be control released to the maximum of 8.90 cfs through the use of a 2.0 ft deep pond and a 12" pipe connection to the existing storm drain system in Innovation Parkway as is shown on the attached Grading and Drainage plan. With the use of this system, this plan complies with the restraints imposed by the Research and Technology Park Master Drainage Plan

prepared by Bohannon Huston and approved by the City of Albuquerque During the 100yr event, pond 1 overflows into the parking lot.

Exhibit A

AHYMO Input pond 1

```

*          *****
*          POLYFLOW ENGINEERING PONDING CALCS
*          *100 YEAR 6 HOUR PROP CONDITIONS
*          *****

START          TIME=0.0 HR PUNCH CODE=0 PRINT LINES=-3
RAINFALL          TYPE=1 RAIN QUARTER=0.0
                  RAIN ONE=2.1 IN RAIN SIX=2.60 IN
                  RAIN DAY=3.10 IN DT=0.0333 HRS
*          *****

COMPUTE NM HYD    ID=1 HYD NO=A1 DA=0.00556 SQ MI
                  PER A=0 PER B=20 PER C=0 PER D=80
                  TP=-0.1333 HR MASS RAIN=-1
*          *****

PRINT HYD          ID=1 CODE=1
*
*          *****
*          Interim POND No. 1 61.5% of entire basin
*          *****

ROUTE RESERVOIR    ID=200 HYD=POND1 INFLOW= ID=1
CODE=5

                  OUTFLOW(CFS) STORAGE(AC FT) ELEVATION (FT)
                  0.00      0.000      92.80
                  1.56      0.015      93.00
                  2.92      0.055      93.50
                  3.82      0.097      94.00
                  4.54      0.142      94.50
                  5.17      0.190      95.00
                  5.65      0.238      95.35
*
FINISH

```


AHYMO Output Pond 1

AHYMO PROGRAM (AHYMO 97) - - Version:
1997.02c
RUN DATE (MON/DAY/YR) = 07/25/2005
START TIME (HR:MIN:SEC) = 11:48:33 USER NO. =
AHYMO-I-9702a0100003C-SH
INPUT FILE =
C:\DOCUME~1\RECEPT~1\Desktop\AHYMOI~1.TXT

* *****
* POLYFLOW ENGINEERING PONDING CALCS
* *100 YEAR 6 HOUR PROP CONDITIONS
* *****
START TIME=0.0 HR PUNCH CODE=0 PRINT LINES=-3
RAINFALL TYPE=1 RAIN QUARTER=0.0
RAIN ONE=2.1 IN RAIN SIX=2.60 IN
RAIN DAY=3.10 IN DT=0.0333 HRS

COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED
ON NOAA ATLAS 2 - PEAK AT 1.40 HR.

DT = .033300 HOURS END TIME = 5.994000
HOURS

.0000	.0033	.0066	.0100	.0135	.0171	.0207
.0244	.0282	.0321	.0361	.0402	.0444	.0487
.0532	.0577	.0624	.0673	.0723	.0774	.0828
.0883	.0940	.1000	.1062	.1127	.1194	.1265
.1340	.1418	.1501	.1560	.1621	.1688	.1824
.2138	.2622	.3318	.4269	.5520	.7117	.9106
1.1534	1.3866	1.4823	1.5628	1.6343	1.6993	1.7591
1.8147	1.8666	1.9152	1.9610	2.0042	2.0449	2.0835
2.1201	2.1548	2.1877	2.2189	2.2486	2.2574	2.2645
2.2713	2.2778	2.2841	2.2901	2.2960	2.3016	2.3070
2.3123	2.3175	2.3224	2.3273	2.3320	2.3367	2.3412
2.3456	2.3499	2.3541	2.3582	2.3623	2.3663	2.3702
2.3740	2.3777	2.3814	2.3851	2.3886	2.3922	2.3956

2.3990	2.4024	2.4057	2.4090	2.4122	2.4154	2.4185
2.4216	2.4246	2.4276	2.4306	2.4336	2.4365	2.4393
2.4422	2.4450	2.4478	2.4505	2.4532	2.4559	2.4586
2.4612	2.4638	2.4664	2.4689	2.4715	2.4740	2.4765
2.4789	2.4814	2.4838	2.4862	2.4886	2.4909	2.4932
2.4956	2.4979	2.5001	2.5024	2.5046	2.5069	2.5091
2.5113	2.5134	2.5156	2.5177	2.5199	2.5220	2.5241
2.5262	2.5282	2.5303	2.5323	2.5343	2.5364	2.5384
2.5403	2.5423	2.5443	2.5462	2.5482	2.5501	2.5520
2.5539	2.5558	2.5577	2.5595	2.5614	2.5632	2.5651
2.5669	2.5687	2.5705	2.5723	2.5741	2.5758	2.5776
2.5794	2.5811	2.5828	2.5846	2.5863	2.5880	2.5897
2.5914	2.5931	2.5947	2.5964	2.5981	2.5997	

* *****

COMPUTE NM HYD ID=1 HYD NO=A1 DA=0.00556 SQ MI
 PER A=0 PER B=20 PER C=0 PER D=80
 TP=-0.1333 HR MASS RAIN=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000
 SHAPE CONSTANT, N = 7.106420
 UNIT PEAK = 17.561 CFS UNIT VOLUME = .9987 B =
 526.28 P60 = 2.1000
 AREA = .004448 SQ MI IA = .10000 INCHES INF =
 .04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL
 ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033300

K = .133173HR TP = .133300HR K/TP RATIO = .999050
 SHAPE CONSTANT, N = 3.533693
 UNIT PEAK = 2.6927 CFS UNIT VOLUME = .9953 B =
 322.78 P60 = 2.1000
 AREA = .001112 SQ MI IA = .50000 INCHES INF =
 1.25000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL
 ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033300

* *****

PRINT HYD ID=1 CODE=1

HYDROGRAPH FROM AREA A1

RUNOFF VOLUME = 2.06177 INCHES = .6114 ACRE-
FEET

PEAK DISCHARGE RATE = 15.87 CFS AT 1.499 HOURS
BASIN AREA = .0056 SQ. MI.

*
*

*
Interim POND No. 1 61.5% of entire basin
*

ROUTE RESERVOIR ID=200 HYD=POND1 INFLOW= ID=1
CODE=5

<u>ELEVATION (FT)</u>	<u>OUTFLOW(CFS)</u>	<u>STORAGE(AC FT)</u>
0.00	0.000	92.80
1.56	0.015	93.00
2.92	0.055	93.50
3.82	0.097	94.00
4.54	0.142	94.50
5.17	0.190	95.00
5.65	0.238	95.35

TIME INFLOW ELEV VOLUME OUTFLOW
(HRS) (CFS) (FEET) (AC-FT) (CFS)

.00	.00	92.80	.000	.00
.17	.00	92.80	.000	.00
.33	.00	92.80	.000	.00
.50	.00	92.80	.000	.00
.67	.00	92.80	.000	.00
.83	.03	92.80	.000	.00
1.00	.39	92.83	.002	.20
1.17	.47	92.85	.004	.39

1.33	4.51	93.04	.018	1.67
1.50	15.87	94.27	.121	4.21
1.67	8.17	95.22	.220	5.47
1.83	5.14	95.30	.231	5.58
2.00	3.69	95.19	.215	5.42
2.16	1.76	94.92	.182	5.07
2.33	.87	94.40	.133	4.40
2.50	.57	93.89	.088	3.62
2.66	.40	93.44	.050	2.76
2.83	.30	93.11	.024	1.86
3.00	.24	92.91	.008	.85
3.16	.20	92.85	.004	.37
3.33	.17	92.83	.002	.23
3.50	.16	92.82	.002	.18
3.66	.15	92.82	.002	.16
3.83	.14	92.82	.001	.15
4.00	.14	92.82	.001	.14
4.16	.13	92.82	.001	.14
4.33	.13	92.82	.001	.13
4.50	.13	92.82	.001	.13
4.66	.13	92.82	.001	.13
4.83	.13	92.82	.001	.13
5.00	.13	92.82	.001	.13
5.16	.13	92.82	.001	.13
5.33	.13	92.82	.001	.13
5.49	.13	92.82	.001	.13
5.66	.13	92.82	.001	.13
5.83	.14	92.82	.001	.14
5.99	.14	92.82	.001	.14
6.16	.05	92.81	.001	.11
6.33	.02	92.81	.000	.04
6.49	.01	92.80	.000	.02
6.66	.00	92.80	.000	.01
6.83	.00	92.80	.000	.00

PEAK DISCHARGE = 5.591 CFS - PEAK OCCURS AT HOUR
1.80
MAXIMUM WATER SURFACE ELEVATION = 95.307
MAXIMUM STORAGE = .2321 AC-FT INCREMENTAL
TIME= .033300HRS

POLY FLOW ENGINEERING

Drainage pond area computations:

25063 Pond 1

7/22/05

diameter = 0.9600
k= 0.6000
A= 0.7238
Inv el. = 92.8000

Height above pond bottom	Pond Elev.,	Area (sf)	Average Storage Volume	Cumul. Storage	head	Q
0.0000	92.8000	3,248.0000	0.0000	0.0000	0.0000	0.0000
0.2000	93.0000	3,340.0000	0.0151	0.0151	0.2000	1.5586
0.7000	93.5000	3,573.0000	0.0397	0.0548	0.7000	2.9159
1.2000	94.0000	3,812.0000	0.0424	0.0972	1.2000	3.8178
1.7000	94.5000	4,054.0000	0.0451	0.1423	1.7000	4.5441
2.2000	95.0000	4,251.0000	0.0477	0.1900	2.2000	5.1694
2.5500	95.3500	7,785.0000	0.0484	0.2383	2.5500	5.5654

NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) =
11:48:33
□□2

```

*
*****
*
POLYFLOW ENGINEERING PONDING CALCS
*100 YEAR 6 HOUR PROP CONDITIONS
*
*****
START          TIME=0.0 HR PUNCH CODE=0 PRINT LINES=-3
RAINFALL       TYPE=1 RAIN QUARTER=0.0
               RAIN ONE=2.1 IN RAIN SIX=2.60 IN
               RAIN DAY=3.10 IN DT=0.0333 HRS
*
*****
COMPUTE NM HYD   ID=1 HYD NO=A1 DA=0.00340 'SQ MI
               PER A=0 PER B=20 PER C=0 PER D=80
               TP=-0.1333 HR MASS RAIN=-1
*
*****
PRINT HYD       ID=1 CODE=1
*
*****
*
Interim POND No. 2 38.4% of entire basin
*
*****
ROUTE RESERVOIR   ID=200 HYD=POND1 INFLOW= ID=1
CODE=5
               OUTFLOW(CFS) STORAGE(AC FT) ELEVATION (FT)
               0.00      0.051      93.50
               1.50      0.078      94.00
               2.13      0.107      94.50
               2.61      0.138      95.00
               3.01      0.170      95.50
               3.36      0.205      96.00
*
FINISH

```

Pond 2 ahymo output

□□□□0

AHYMO PROGRAM (AHYMO_97) - - Version:
1997.02c
RUN DATE (MON/DAY/YR) = 06/01/2005
START TIME (HR:MIN:SEC) = 15:53:51 USER NO.=
AHYMO-I-9702a0100003C-SH
INPUT FILE = K:\PROJECTS\2005\25063\AHYMO~KO.TXT

* *****
* POLYFLOW ENGINEERING PONDING CALCS
* *100 YEAR 6 HOUR PROP CONDITIONS
* *****
START TIME=0.0 HR PUNCH CODE=0 PRINT LINES=-3
RAINFALL TYPE=1 RAIN QUARTER=0.0
RAIN ONE=2.1 IN RAIN SIX=2.60 IN
RAIN DAY=3.10 IN DT=0.0333 HRS

COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED
ON NOAA ATLAS 2 - PEAK AT 1.40 HR.
DT = .033300 HOURS END TIME = 5.994000

HOURS

<u>.0000</u>	<u>.0033</u>	<u>.0066</u>	<u>.0100</u>	<u>.0135</u>	<u>.0171</u>	<u>.0207</u>
<u>.0244</u>	<u>.0282</u>	<u>.0321</u>	<u>.0361</u>	<u>.0402</u>	<u>.0444</u>	<u>.0487</u>
<u>.0532</u>	<u>.0577</u>	<u>.0624</u>	<u>.0673</u>	<u>.0723</u>	<u>.0774</u>	<u>.0828</u>
<u>.0883</u>	<u>.0940</u>	<u>.1000</u>	<u>.1062</u>	<u>.1127</u>	<u>.1194</u>	<u>.1265</u>
<u>.1340</u>	<u>.1418</u>	<u>.1501</u>	<u>.1560</u>	<u>.1621</u>	<u>.1688</u>	<u>.1824</u>
<u>.2138</u>	<u>.2622</u>	<u>.3318</u>	<u>.4269</u>	<u>.5520</u>	<u>.7117</u>	<u>.9106</u>
<u>1.1534</u>	<u>1.3866</u>	<u>1.4823</u>	<u>1.5628</u>	<u>1.6343</u>	<u>1.6993</u>	<u>1.7591</u>
<u>1.8147</u>	<u>1.8666</u>	<u>1.9152</u>	<u>1.9610</u>	<u>2.0042</u>	<u>2.0449</u>	<u>2.0835</u>

2.1201	2.1548	2.1877	2.2189	2.2486	2.2574	2.2645
2.2713	2.2778	2.2841	2.2901	2.2960	2.3016	2.3070
2.3123	2.3175	2.3224	2.3273	2.3320	2.3367	2.3412
2.3456	2.3499	2.3541	2.3582	2.3623	2.3663	2.3702
2.3740	2.3777	2.3814	2.3851	2.3886	2.3922	2.3956
2.3990	2.4024	2.4057	2.4090	2.4122	2.4154	2.4185
2.4216	2.4246	2.4276	2.4306	2.4336	2.4365	2.4393
2.4422	2.4450	2.4478	2.4505	2.4532	2.4559	2.4586
2.4612	2.4638	2.4664	2.4689	2.4715	2.4740	2.4765
2.4789	2.4814	2.4838	2.4862	2.4886	2.4909	2.4932
2.4956	2.4979	2.5001	2.5024	2.5046	2.5069	2.5091
2.5113	2.5134	2.5156	2.5177	2.5199	2.5220	2.5241
2.5262	2.5282	2.5303	2.5323	2.5343	2.5364	2.5384
2.5403	2.5423	2.5443	2.5462	2.5482	2.5501	2.5520
2.5539	2.5558	2.5577	2.5595	2.5614	2.5632	2.5651
2.5669	2.5687	2.5705	2.5723	2.5741	2.5758	2.5776
2.5794	2.5811	2.5828	2.5846	2.5863	2.5880	2.5897
2.5914	2.5931	2.5947	2.5964	2.5981	2.5997	

*

COMPUTE NM HYD ID=1 HYD NO=A1 DA=0.00340 SQ MI
 PER A=0 PER B=20 PER C=0 PER D=80
 TP=-0.1333 HR MASS RAIN=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000
 SHAPE CONSTANT, N = 7.106420
 UNIT PEAK = 10.739 CFS UNIT VOLUME = .9982 B =
 526.28 P60 = 2.1000
 AREA = .002720 SQ MI IA = .10000 INCHES INF =
 .04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL
 ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033300

K = .133173HR TP = .133300HR K/TP RATIO = .999050
 SHAPE CONSTANT, N = 3.533693
 UNIT PEAK = 1.6466 CFS UNIT VOLUME = .9920 B =
 322.78 P60 = 2.1000
 AREA = .000680 SQ MI IA = .50000 INCHES INF =
 1.25000 INCHES PER HOUR

RUNOFF COMPUTED BY INITIAL
ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033300

* *****
PRINT HYD ID=1 CODE=1

HYDROGRAPH FROM AREA A1

RUNOFF VOLUME = 2.06177 INCHES = .3739 ACRE-
FEET
PEAK DISCHARGE RATE = 9.71 CFS AT 1.499 HOURS
BASIN AREA = .0034 SQ. MI.

*
 * *****
 * Interim POND No. 2 38.4% of entire basin
 * *****
ROUTE RESERVOIR ID=200 HYD=POND1 INFLOW= ID=1
CODE=5

	<u>OUTFLOW(CFS) STORAGE(AC FT)</u>	
<u>ELEVATION (FT)</u>		
	0.00	0.051 93.50
	1.50	0.078 94.00
	2.13	0.107 94.50
	2.61	0.138 95.00
	3.01	0.170 95.50
	3.36	0.205 96.00

* * * * *

<u>TIME</u>	<u>INFLOW</u>	<u>ELEV</u>	<u>VOLUME</u>	<u>OUTFLOW</u>
<u>(HRS)</u>	<u>(CFS)</u>	<u>(FEET)</u>	<u>(AC-FT)</u>	<u>(CFS)</u>
.00	.00	93.50	.051	.00
.17	.00	93.50	.051	.00
.33	.00	93.50	.051	.00
.50	.00	93.50	.051	.00

.67	.00	93.50	.051	.00
.83	.02	93.50	.051	.00
1.00	.24	93.53	.052	.08
1.17	.29	93.56	.054	.18
1.33	2.76	93.76	.065	.77
1.50	9.71	94.85	.129	2.47
1.67	5.00	95.80	.191	3.22
1.83	3.14	95.93	.200	3.31
2.00	2.26	95.81	.191	3.22
2.16	1.08	95.53	.172	3.03
2.33	.53	95.08	.143	2.67
2.50	.35	94.63	.115	2.26
2.66	.24	94.23	.091	1.79
2.83	.18	93.90	.073	1.21
3.00	.14	93.72	.063	.65
3.16	.12	93.62	.058	.37
3.33	.11	93.58	.055	.23
3.50	.10	93.55	.054	.16
3.66	.09	93.54	.053	.13
3.83	.09	93.54	.053	.11
4.00	.08	93.53	.053	.10
4.16	.08	93.53	.053	.09
4.33	.08	93.53	.053	.08
4.50	.08	93.53	.052	.08
4.66	.08	93.53	.052	.08
4.83	.08	93.53	.052	.08
5.00	.08	93.53	.052	.08
5.16	.08	93.53	.052	.08
5.33	.08	93.53	.052	.08
5.49	.08	93.53	.052	.08
5.66	.08	93.53	.052	.08
5.83	.08	93.53	.052	.08
5.99	.09	93.53	.053	.08
6.16	.03	93.52	.052	.07
6.33	.01	93.51	.052	.04
6.49	.00	93.51	.051	.02
6.66	.00	93.50	.051	.01
6.83	.00	93.50	.051	.01
6.99	.00	93.50	.051	.00

PEAK DISCHARGE = 3.310 CFS - PEAK OCCURS AT HOUR
1.80

MAXIMUM WATER SURFACE ELEVATION = 95.928

MAXIMUM STORAGE = .2000 AC-FT INCREMENTAL
TIME= .033300HRS

*
FINISH

NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) =
15:53:51
□□2

POLY FLOW ENGINEERING

Drainage pond area computations:

25063 Pond 2

6/01/05

diameter = 0.7500

k= 0.6000

A= 0.4418

Inv el. = 93.5000

Height above pond bottom	Pond Elev.	Area (sf)	Average Storage Volume	Cumul. Storage	head	Q		
0.0000	93.5000	2,267.0000	-0.1030	0.0512	0.0000	0.0000		
0.5000	94.0000	2,426.0000	0.0269	0.0782	0.5000	1.5042		
1.0000	94.5000	2,588.0000	0.0288	0.1069	1.0000	2.1272		
1.5000	95.0000	2,752.0000	0.0306	0.1376	1.5000	2.6053		
2.0000	95.5000	2,917.0000	0.0325	0.1701	2.0000	3.0083		
2.5000	96.0000	3,086.0000	0.0345	0.2046	2.5000	3.3634		

CITY OF ALBUQUERQUE



**Planning Department
Transportation Development Services Section**

August 9, 2006

Joe L. Slagle, Registered Architect
1600 Rio Grande NW
Albuquerque, NM 87104

Re: Certification Submittal for Final Building Certificate of Occupancy for
Poly-Flow Manufacturing & Office, [M-21 / D7A1]
10800 Gibson SE
Architect's Stamp Dated 08/02/06

P.O. Box 1293

Dear Mr. Slagle:

Albuquerque

The TCL / Letter of Certification submitted on August 9, 2006 is sufficient for acceptance by this office for final Certificate of Occupancy (C.O.). Notification has been made to the Building and Safety Section.

New Mexico 87103

Sincerely,

www.cabq.gov

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

c: Engineer
Hydrology file
CO Clerk

TRAFFIC CERTIFICATION

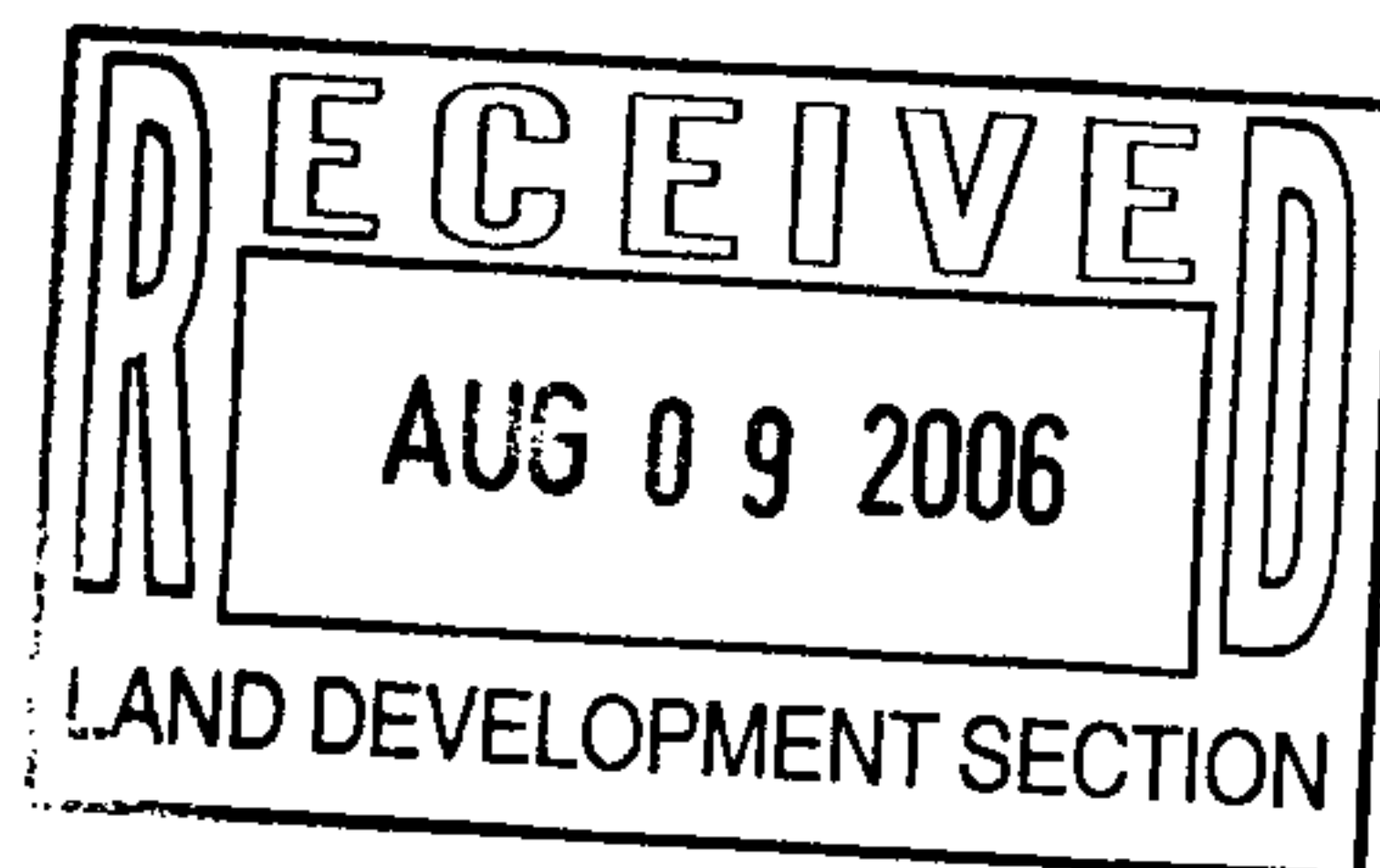
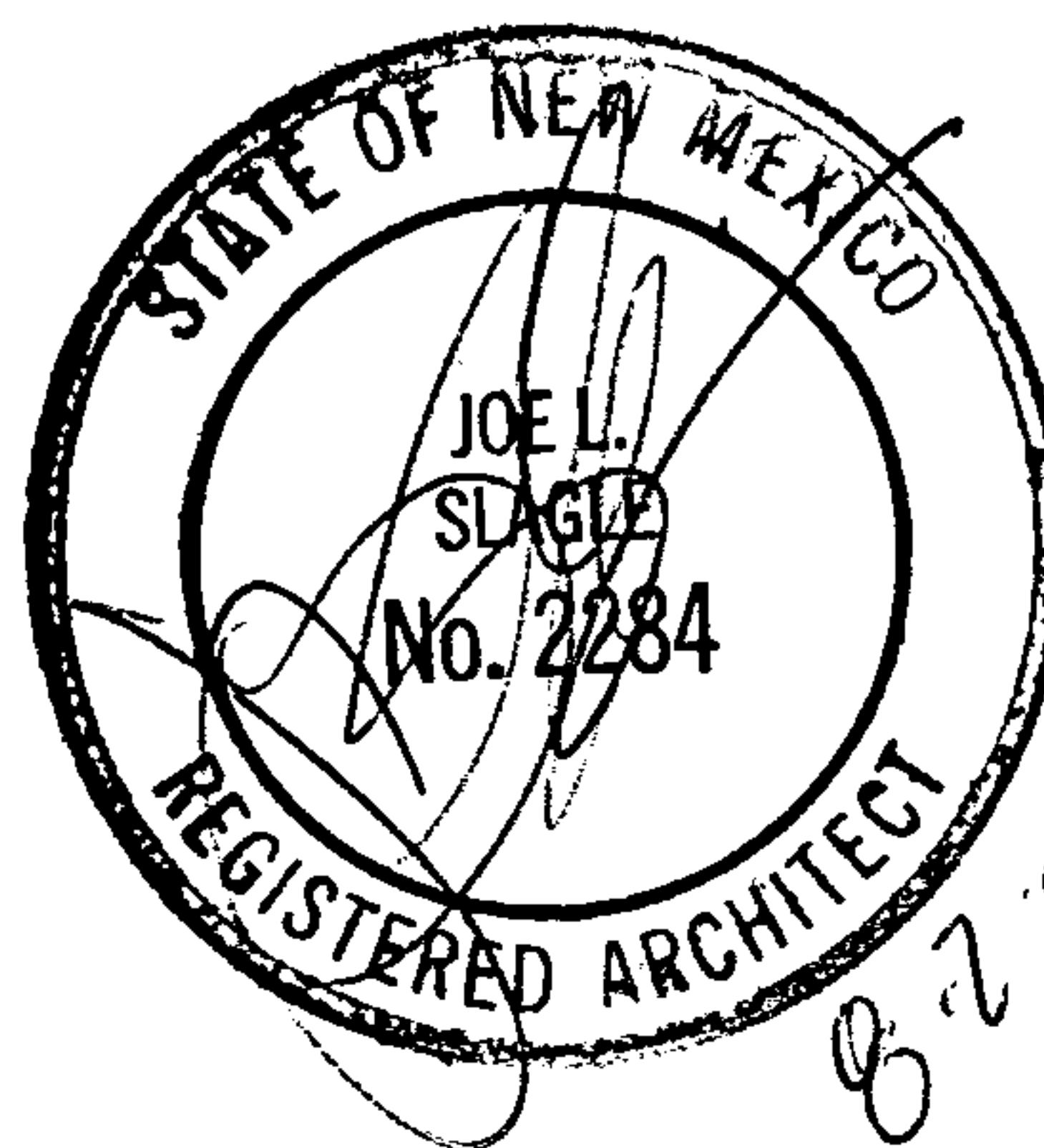
I, Joe L. Slagle, NMPE or NMRA 2284, of the firm JLS Architects, hereby certify that the Ktech/Polyflow Building, located at 10800 Gibson SE, DRB project no. 1001031, is in substantial compliance with and in accordance with the design intent of the DRB approved plan dated 8-04-05. The record information edited onto the original design document has been obtained by Joe L. Slagle of the firm JLS Architects. I further certify that I have personally visited the project site on 8-02-06 and have determined by visual inspection that the survey data provided is representative of actual site conditions and is true and correct to the best of my knowledge and belief. This certification is submitted in support of a request for certificate of occupancy.

The record information presented hereon is not necessarily complete and intended only to verify substantial compliance of the traffic aspects of this project. Those relying on the record document are advised to obtain independent verification of its accuracy before using it for any other purpose.

Signature of Engineer or Architect

Engineer's or Architect's Stamp

Date



1600 rio grande nw
albuquerque
new mexico 87104
505 246 0870
fax 505 246 0437
www.jlsarchitects.com

JLS

ARCHITECTS

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(REV 12/2005)

PROJECT TITLE: POLY - FLOW MANUFACTURING \$OFFICE
DRB#: _____ EPC#: _____ WORK ORDER#: _____ ZONE MAP: M-21/D7A1

LEGAL DESCRIPTION: _____
CITY ADDRESS: 10800 GIBSON AVE. SE

ENGINEERING FIRM: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

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

ARCHITECT: JOE SLAGLE CONTACT: JOE S.
ADDRESS: 1600 RIOGRANDE NW PHONE: 246-0870
CITY, STATE: ALBU, NM ZIP CODE: 87104

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

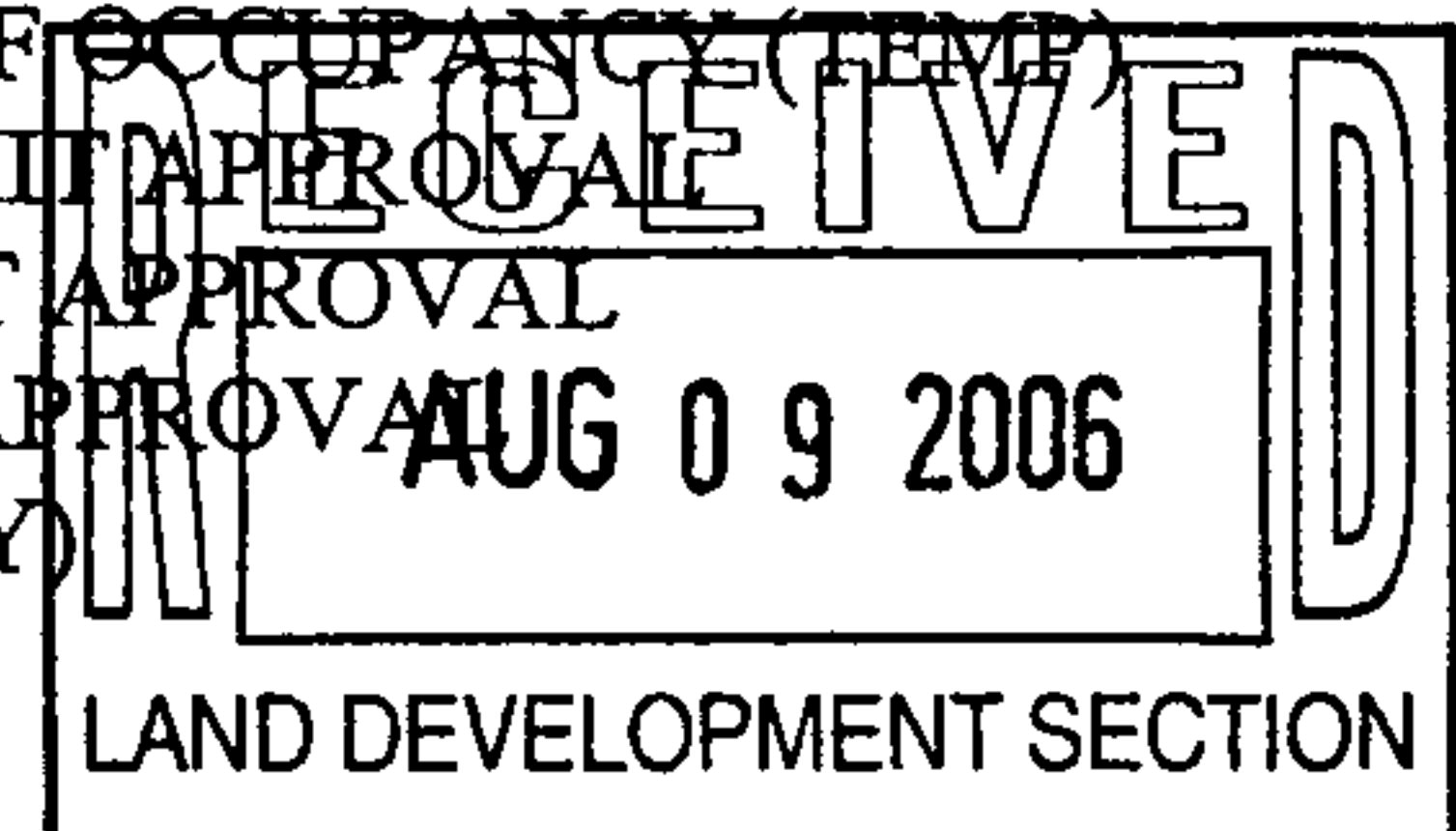
CONTRACTOR: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
- ☐ DRAINAGE PLAN 1st SUBMITTAL
- ☐ DRAINAGE PLAN RESUBMITTAL
- ☐ CONCEPTUAL G & D PLAN
- ☐ GRADING PLAN
- ☐ EROSION CONTROL PLAN
- ☐ ENGINEER'S CERT (HYDROLOGY)
- ☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT
- ☒ ENGINEER'S CERT (TCL)
- ☐ ENGINEER'S CERT (DRB SITE PLAN)
- ☐ OTHER (SPECIFY) _____

CHECK TYPE OF APPROVAL SOUGHT:

- ☐ SIA/FINANCIAL GUARANTEE RELEASE
- ☐ PRELIMINARY PLAT APPROVAL
- ☐ S. DEV. PLAN FOR SUB'D APPROVAL
- ☐ S. DEV. 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:

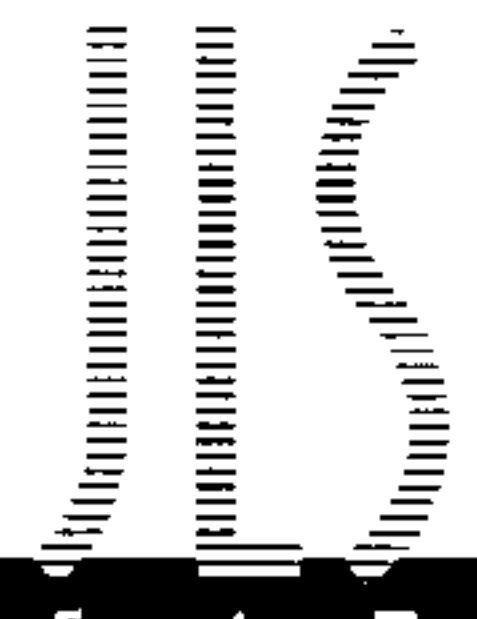
- ☐ YES
- ☐ NO
- ☐ COPY PROVIDED

DATE SUBMITTED: _____ BY: _____

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location, and scope to 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 subdivision containing more than ten (10) lots or constituting five (5) acres or more.

August 2, 2006



LETTER OF TRANSMITTAL

JLS ARCHITECTS

PROJECT Poly-Flow Manufacturing & Office

RE: Traffic Certification

1600 rio grande nw
albuquerque
new mexico 87104
505 246 0870
fax 505 246 0437

TO Nilo Salgado

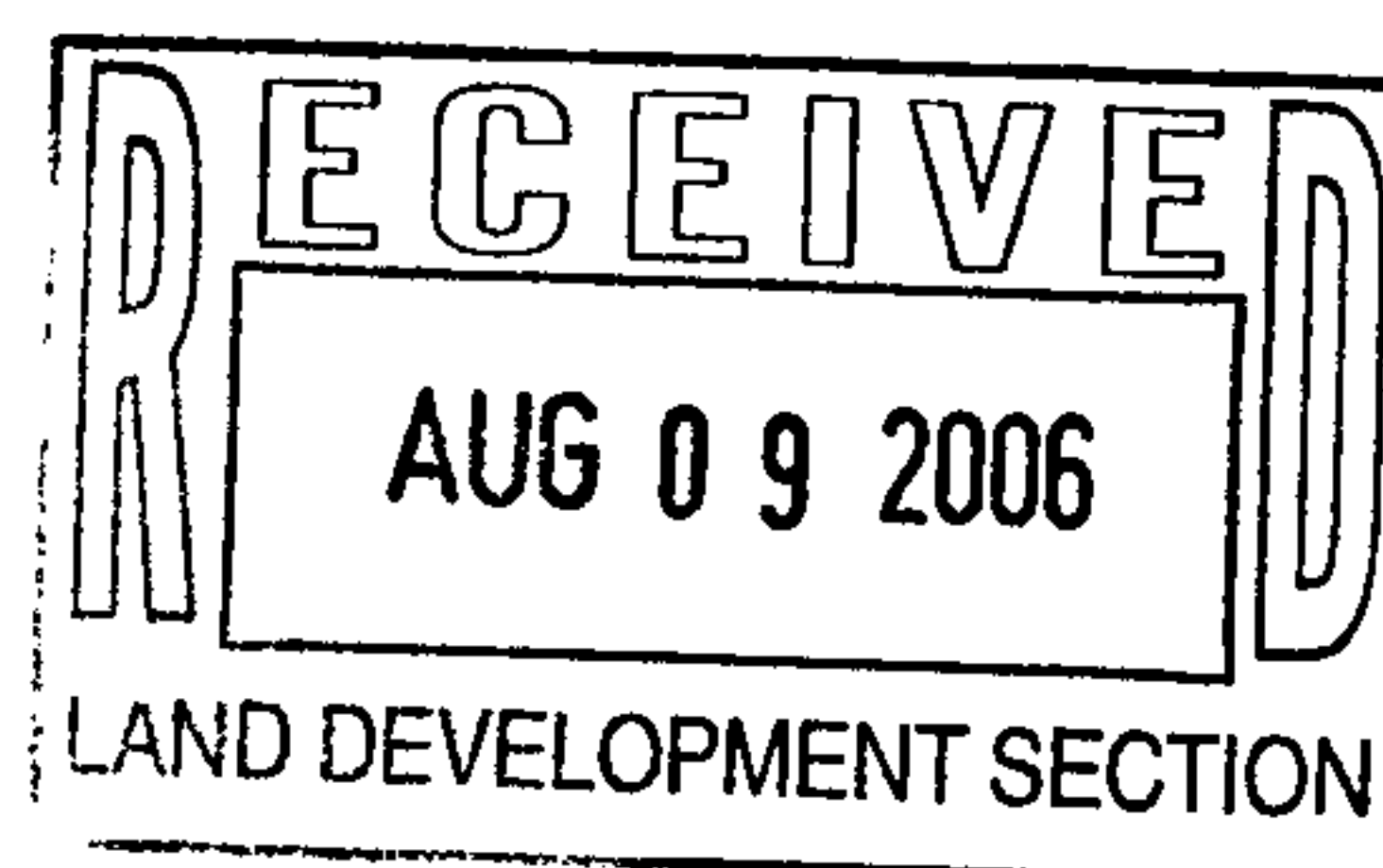
FROM Joe Slagle

QUANTITY	DESCRIPTION	NOTES
1 ea.	Traffic certification	See below

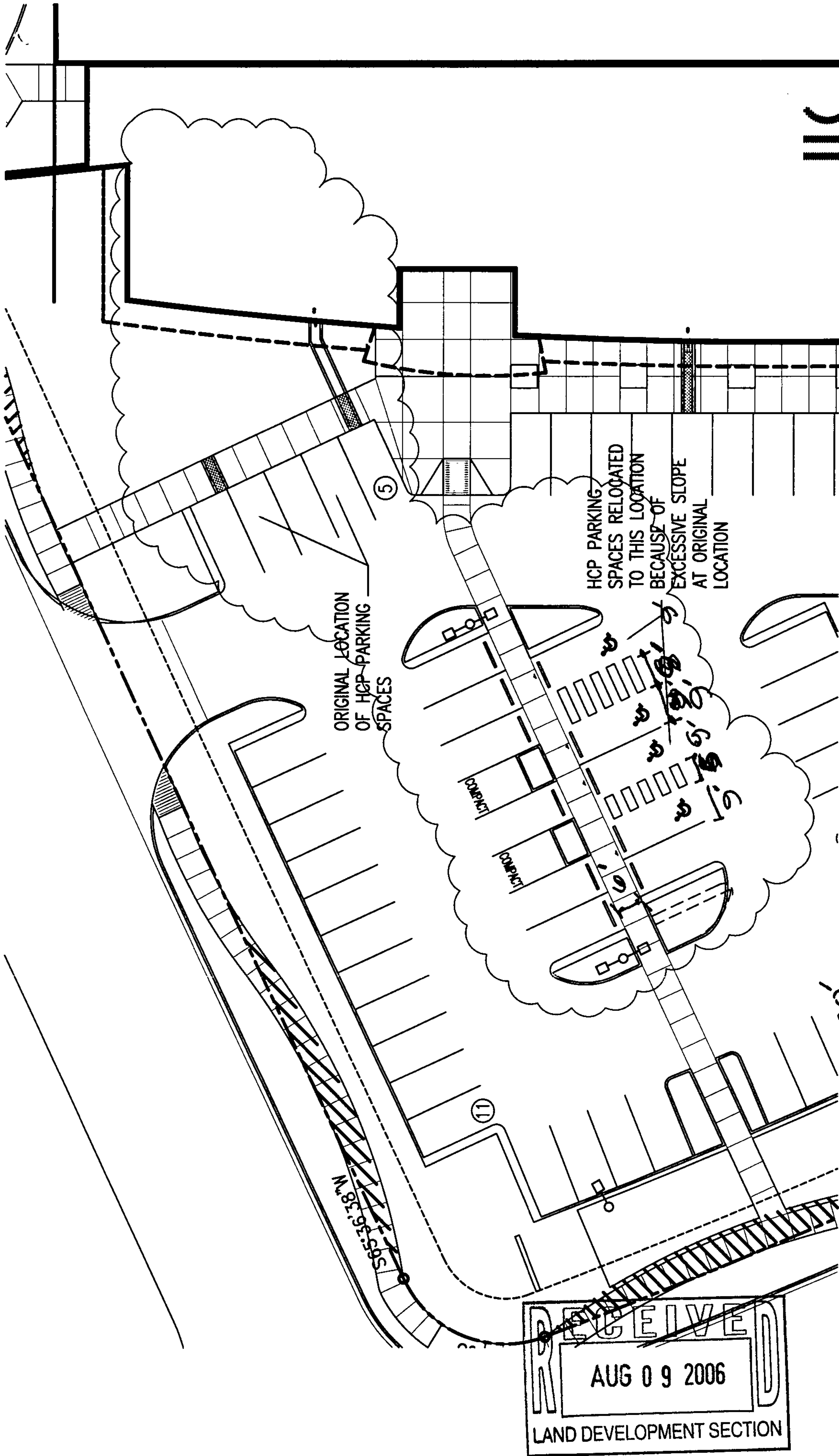
COMMENTS

Nilo,
The only revision from the approved site plan was the re-location of four handicap spaces because the cross slope at the original location exceeded code requirements. The attached sheet shows the change and the current location of the HCP spaces. Let me know if you need more information.

Joe Slagle
JLS Architects Inc.



SIGNED



ARCHITECTS

1600 rio grande nw
albuquerque
new mexico 87104
505 246 0870
fax 505 246 0437

DATE SHEET

8-2-06

SP-1

1 HCP PARKING SPACE PLAN

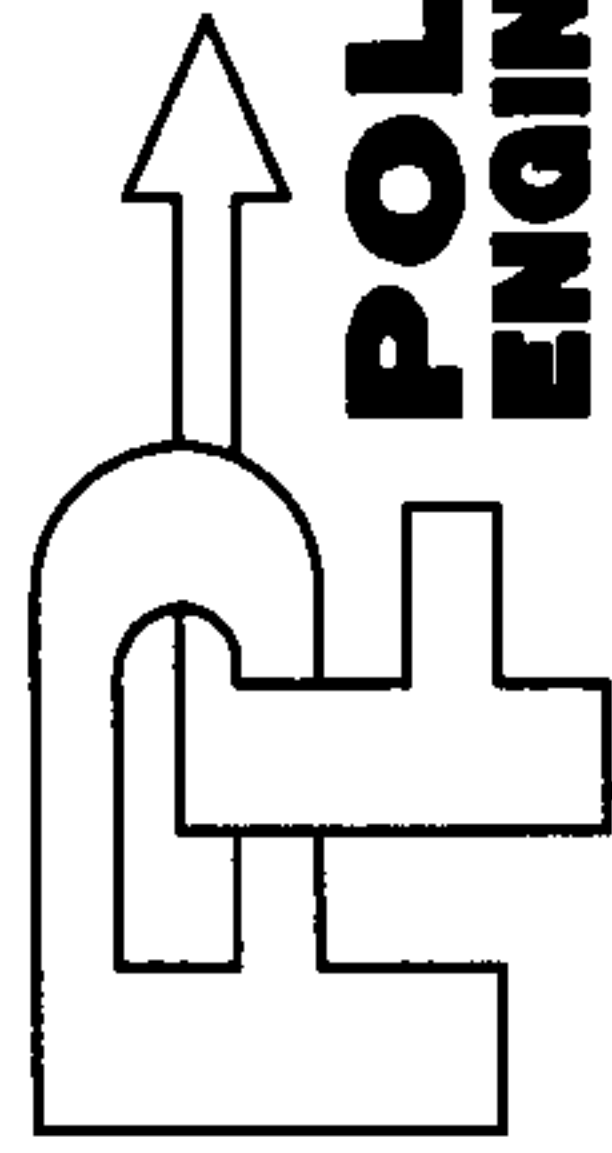
SP-1 1" = 30'-0"

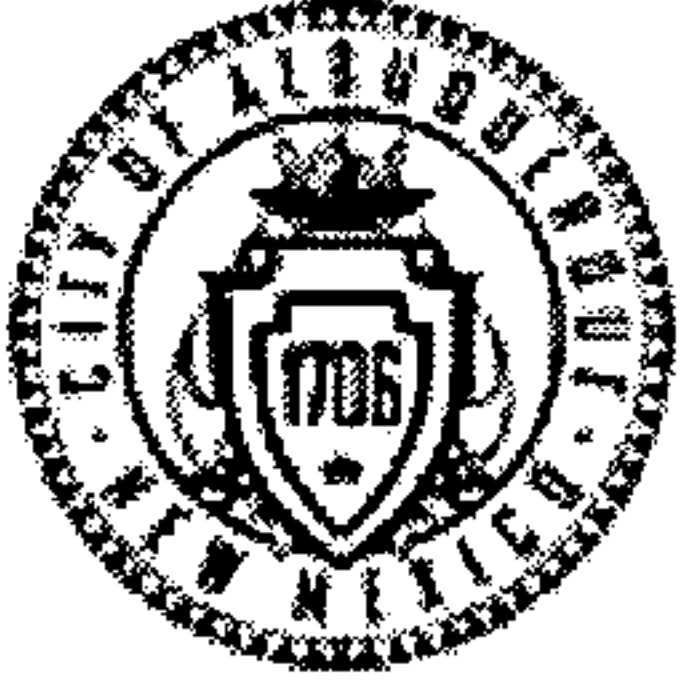
A DIVISION OF



Ktech CORP.

POLY-FLOW
ENGINEERING, LLC





"Joe Slagle"
<joe@jlsarchitects.com>

07/25/2006 08:48 AM

Please respond to
<joe@jlsarchitects.com>

To <wgallegos@cabq.gov>

cc "'Matt Ammerman"' <MattA@jaynescorp.com>, "'Downie, Steve"' <downie@ktech.com>

bcc

Subject Ktech, Polyflow Manufacturing

Wilfred,

Per the request of Matt Ammerman at Jaynes, I am writing this to inform you of the progress at the new Polyflow Manufacturing building at 10800 Gibson SE. As you may be aware, the construction of this project is in two phases, the first being the manufacturing portion and east sitework which is complete, and the second phase being the offices and west sitework. The manufacturing portion is occupied and operational per a temporary certificate of occupancy. The construction of the office wing and west site work is almost complete, and Ktech has a move in date set for August 11, 2006. The project should be substantially complete by that date, with only punch list items remaining. We are requesting that the temporary certificate of occupancy for the manufacturing portion be extended to allow us this time to complete the office portion and submit the entire project for final C.O. by mid August.

Thank you for your consideration in this matter,

Joe Slagle
President
JLS Architects

Joe L. Slagle

JLS Architects, Inc.

1600 Rio Grande NW

Albuquerque, NM 87104

505.246.0870

joe@jlsarchitects.com

PLEASE,
I BELIEVE THIS IS
OKAY w/ ME. CAN
YOU CHECK INTO IT.
14/6

file
M-21/D7A1

Certificate of Occupancy

LO Day Temp

City of Albuquerque
Planning Department
Building Safety Division

STI,
w/leased
' Space

This Certificate, issued pursuant to the requirements of Section 308 of the Albuquerque Uniform Administrative Code, certifies that at the time of issuance this structure was in compliance with the above code and other technical codes and city ordinances regulating building construction or use.

Building Address 10800 Gibson Blvd SE Zip

Portion of Building Suite B

Use Classification Commerical Project Bldg. Permit No. 0510910

Occupancy Group F 1 Type of Construction IIB Sprkld Land Use Zone

Owner of Building KTECH Corp Address 1300 Eubank SE Albuquerque NM 87123

By: Katrina Sigala

Date: April 18, 2006

Bob Williams
Chief Building Official

POST IN A CONSPICUOUS PLACE

FAX TRANSMITTAL

ARCHITECTS

1600 rio grande nw
albuquerque
new mexico 87104
505 246 0870
fax 505 246 0437

TO	Wilfred Gallegos	FROM	Joe Slagle
FAX	924-3864	PAGES	2 sheets
PHONE		DATE	7/26/06 3:18 PM
SUBJECT	Polyflow-Temporary C.O.	COPY	

URGENT

FOR REVIEW

☐ PLEASE REPLY☐ FILE☐ RECYCLE**COMMENTS**

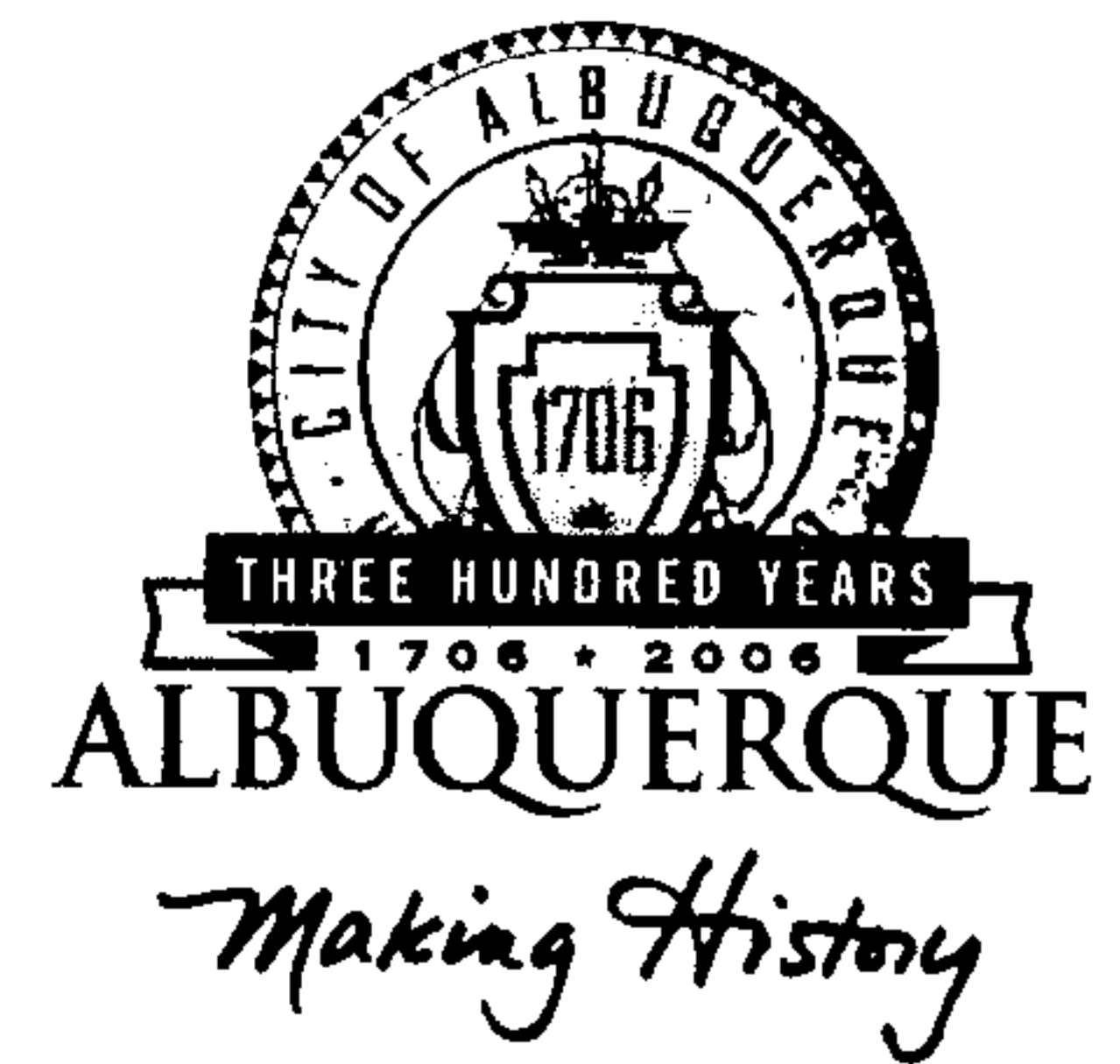
Wilfed,

In regard to the temporary C.O. that Polyflow is currently operating under, you had asked for the file number of the existing temp. C.O. I have no knowledge of a file number, however, I am attaching the temporary C.O. that we are attempting to have extended. You may not be the right contact for this, but I am sending this to you on the request of Matt Ammerman, who has asked me to help get the temporary C.O. extended until mid August. Please let me know if we are barking up the wrong tree.

Thanks,

Joe Slagle
JLS Architects Inc.

CITY OF ALBUQUERQUE



June 7, 2005

Martin Garcia, P.E.
ABQ Engineering
6739 Academy Rd. Suite 130 NE
Albuquerque, NM 87109

Re: Polyflow Manufacturing, Grading and Drainage Report
Engineer's Stamp dated 6-02-05 (M21-D7A1)

Dear Mr. Garcia,

Based upon the information provided in your submittal received 6-03-05, the above referenced report cannot be approved for Building Permit until the following comments are addressed:

1. The edge of curb cannot be at a higher elevation than the retaining wall. Extend the retaining wall to the same elevation, and place fill in between the curb and retaining wall.
2. Specify the size of the proposed curb cuts.
3. Since ponds 1 and 2 are not connected, please specify the quantity of flow that enters each pond.
4. Why are no calculations shown for Pond 3?
5. Provide inverts for all proposed drainage structures.
6. The sump drains, located at each dock, appear to connect to storm drain. Please specify the size of these storm drains, as well as inverts and outfall information.
7. According to the AHYMO User's Manual, when using the ROUTE RESERVOIR command, "the first line of the outflow-storage table must have 0.0 values for outflow and storage."
8. The pond detail refers to the width of the pond as "varies." Please provide more information.

P.O. Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

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

Sincerely,

Bradley L. Bingham, PE
Principal Engineer, Planning Dept.
Development and Building Services

C: File

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/28/2003rd)

PROJECT TITLE: Polyflow Manufacturing
DRB #: _____ EPC#: _____

ZONE MAP/DRG. FILE #: M-21 / D7A1
WORK ORDER#: _____

LEGAL DESCRIPTION: _____
CITY ADDRESS: _____

ENGINEERING FIRM: ABQ Engineering
ADDRESS: 6739 Academy NE Suite 130
CITY, STATE: Albuquerque

CONTACT: Martin J. Garcia
PHONE: 255-7802
ZIP CODE: 87109

OWNER: Shaw, Mitchell, and Mallory Partnership
ADDRESS: 1110 Pennsylvania ST NE
CITY, STATE: Albuquerque, NM

CONTACT: _____
PHONE: _____
ZIP CODE: 87110

ARCHITECT: JLS Architects
ADDRESS: 1600 Rio Grande NW
CITY, STATE: Albuquerque, NM

CONTACT: Joe Slagle
PHONE: 246-0870
ZIP CODE: 87104

SURVEYOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

CONTRACTOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

CHECK TYPE OF SUBMITTAL:

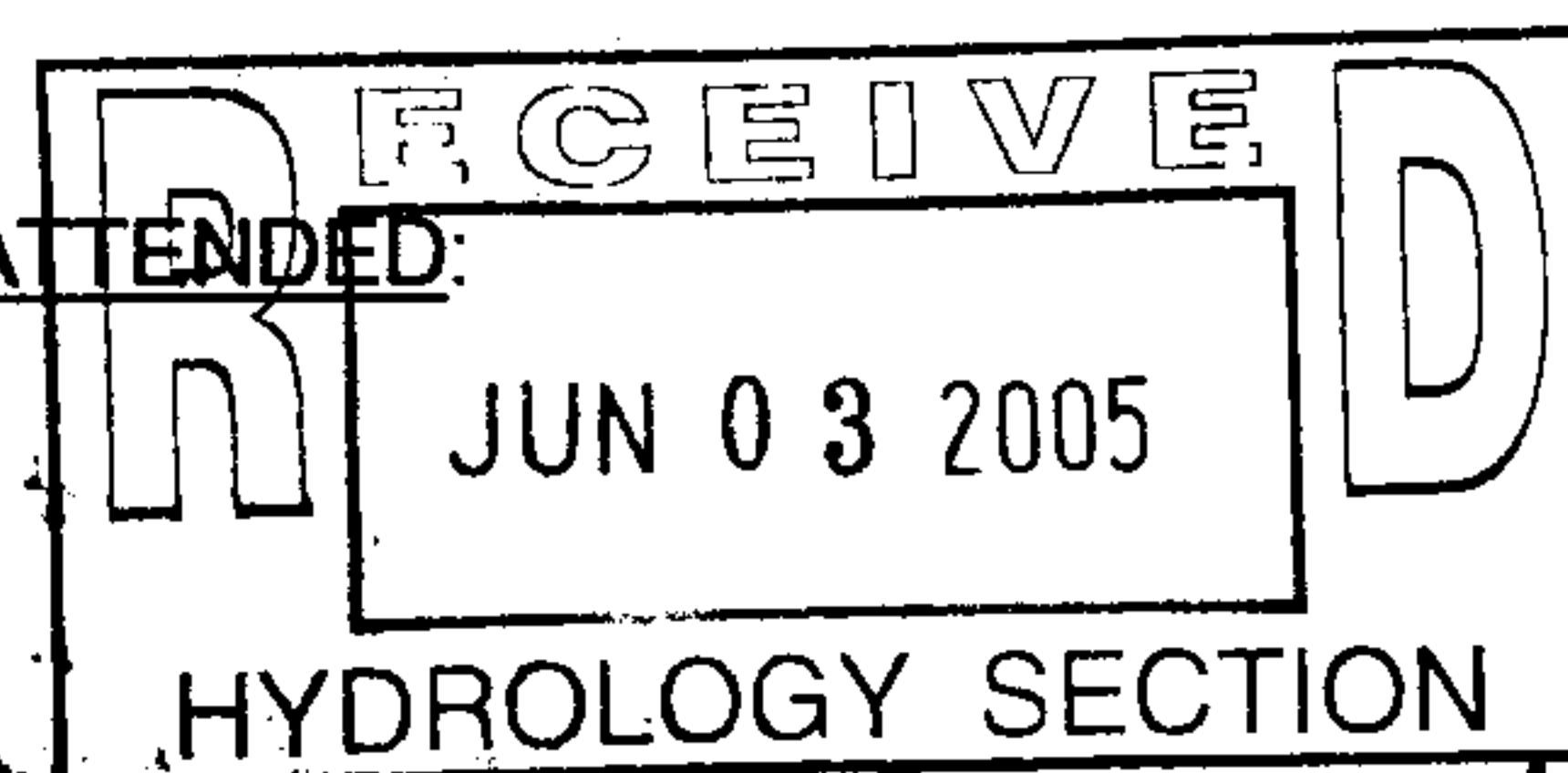
- ☐ DRAINAGE REPORT
- ☐ DRAINAGE PLAN 1st SUBMITTAL, **REQUIRES TCL or equal**
- ☒ DRAINAGE PLAN RESUBMITTAL
- ☐ CONCEPTUAL GRADING & DRAINAGE PLAN
- ☐ GRADING PLAN
- ☐ EROSION CONTROL PLAN
- ☐ ENGINEER'S CERTIFICATION (HYDROLOGY)
- ☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT (TCL)
- ☐ ENGINEERS CERTIFICATION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



DATE SUBMITTED: June 3, 2005

BY: [Signature]

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.

DRAINAGE REPORT

FOR

Polyflow Engineering

LOT 9 AND 10
SCIENCE AND TECHNOLOGY PARK
ZONE ATLAS PAGE M-21

ALBUQUERQUE, NEW MEXICO
June 2, 2005

Prepared By:

ABQ Engineering, Inc.
6739 Academy NE Suite 130
Albuquerque, NM 87109
255-7802 Fax 255-7902



TABLE OF CONTENTS

Table of Contents	Page
I. Introduction	3
II. Project Description	3
III. Methodology	3
IV. Drainage Computations	4
V. Infrastructure	4
VI. Summary and Conclusion	4
Appendix A	Calculations, ahymo input and output
Appendix B	Site Grading and Drainage Plan

I. INTRODUCTION

This report documents the methods used to determine and convey the storm water runoff from the Polyflow Engineering new building site located at the corner of Innovation Parkway and Gibson Blvd to the existing storm drain system in Innovation Parkway.

II. PROJECT DESCRIPTION

The site for the new Polyflow Engineering building is a 5.73 acre site located at the southeast corner of Innovation Parkway and Gibson blvd SE. The new building will be built in multiple phases. The existing vacant site generally slopes from East to West and there are no off-site flows to this site. Surrounding properties to the west east and south are vacant land.

III. METHODOLOGY

The hydrology calculations follow the guidelines set forth in Section 22.2 of the Albuquerque Development Process Manual (DPM). The 100yr-24 hour storm was used to compute runoff quantities. The site is contained within the Science and Technology park Master Drainage plan prepared by Bohannon Huston in September 2001. The Master Drainage plan limits the amount of developed runoff allowed into the storm drain system to 1.57 cfs/acre for the lot and 4.82 cfs/acre for the street for a total of 2.02 cfs/acre. This would translate to an allowable developed discharge of 8.99 cfs for this site. The site will be graded to drain from East to west into three storm drainage ponds, two of which will be connected with a 12" cmp (pond 1), the third will be independent but adjacent (pond 2). Pond 1 will drain into the existing storm drain system via a 12" cmp that will be connected to an existing stub provided with the construction of Innovation Parkway. Pond 2 will drain into the existing storm drain system via a 9" cmp that will be connected to an existing storm drain stub provided with the construction of Innovation Parkway. From the AHYMO results this will allow 8.97 cfs to be control released into the existing storm drain. During the 100yr event, pond 1 will overflow into the parking lot at a water surface elevation of 95.32.

no calcs for Pond 3?

How much flow enters each pond?

IV. DRAINAGE COMPUTATIONS

The proposed development is within Precipitation Zone 2. The Land Treatment Area for the proposed subdivision is as follows:

Type "D"	80%
Type "C"	0%
Type "B"	20%
Type "A"	0%

The analysis resulted in a developed peak flow of 25.56 cfs. See Attached exhibits.

VI. SUMMARY AND CONCLUSION

The developed flows can be control released to the maximum of 8.85 cfs through the use of a 2.0 ft deep pond and a 12" pipe connection to the existing storm drain system in Innovation Parkway as is shown on the attached Grading and Drainage plan. With the use of this system, this plan complies with the restraints imposed by the Research and Technology Park Master Drainage Plan

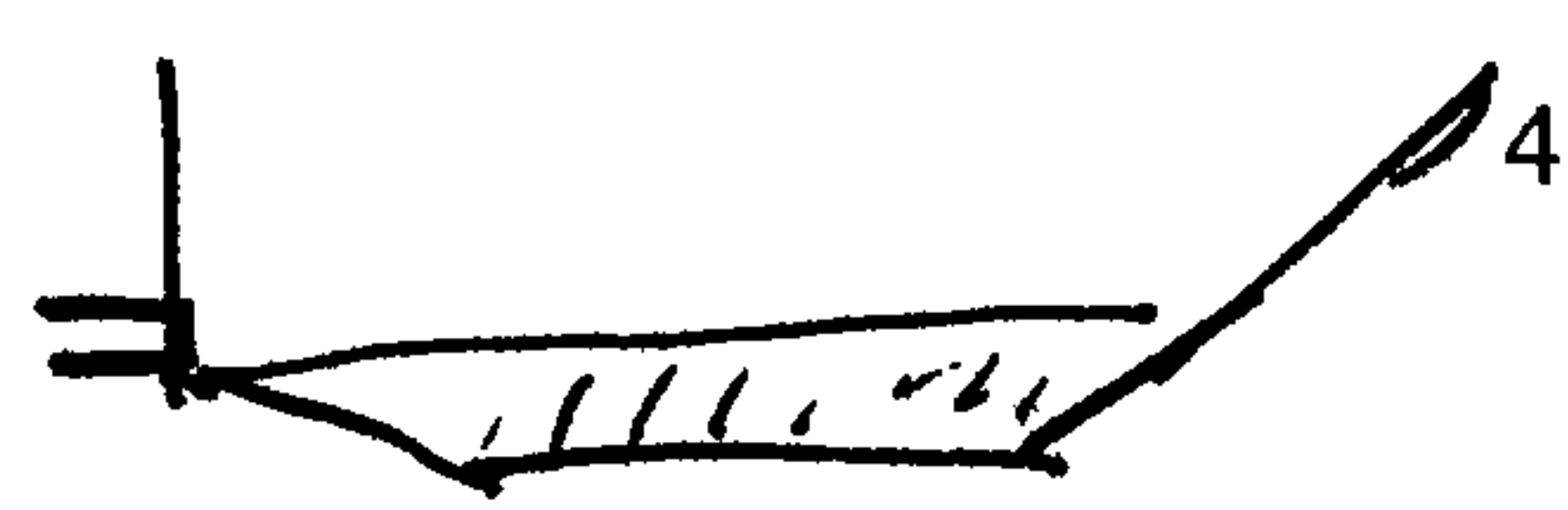
prepared by Bohannon Huston and approved by the City of Albuquerque During the 100yr event, pond 1 overflows into the parking lot.

Exhibit A

Pond 1 AHYMO input and Output files and pond calculations

```
*
* *****
* POLYFLOW ENGINEERING PONDING CALCS
* *100 YEAR 6 HOUR PROP CONDITIONS
* *****
START          TIME=0.0 HR PUNCH CODE=0 PRINT LINES=-3
RAINFALL       TYPE=1 RAIN QUARTER=0.0
               RAIN ONE=2.1 IN RAIN SIX=2.60 IN
               RAIN DAY=3.10 IN DT=0.0333 HRS
*
* *****
COMPUTE NM HYD   ID=1 HYD NO=A1 DA=0.00556 SQ MI
               PER A=0 PER B=20 PER C=0 PER D=80
               TP=-0.1333 HR MASS RAIN=-1
*
* *****
PRINT HYD       ID=1 CODE=1
*
* *****
* Interim POND No. 1 61.5% of entire basin
* *****
ROUTE RESERVOIR   ID=200 HYD=POND1 INFLOW= ID=1
CODE=5
```

OUTFLOW(CFS) STORAGE(AC FT) ELEVATION (FT)		
0.00	0.046	92.80
1.69	0.083	93.00
3.16	0.123	93.50
4.14	0.166	94.00
4.93	0.210	94.50
5.61	0.259	95.00



*

FINISH

Pond 1 Ahymo Output

AHYMO PROGRAM (AHYMO 97) - - Version:
1997.02c
RUN DATE (MON/DAY/YR) = 06/01/2005
START TIME (HR:MIN:SEC) = 16:07:40 USER NO.=
AHYMO-I-9702a0100003C-SH
INPUT FILE = K:\PROJECTS\2005\25063\AHYMO~BD.TXT

* *****
* POLYFLOW ENGINEERING PONDING CALCS
* *100 YEAR 6 HOUR PROP CONDITIONS
* *****
START TIME=0.0 HR PUNCH CODE=0 PRINT LINES=-3
RAINFALL TYPE=1 RAIN QUARTER=0.0
RAIN ONE=2.1 IN RAIN SIX=2.60 IN
RAIN DAY=3.10 IN DT=0.0333 HRS

COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED
ON NOAA ATLAS 2 - PEAK AT 1.40 HR.

DT = .033300 HOURS END TIME = 5.994000
HOURS

<u>.0000</u>	<u>.0033</u>	<u>.0066</u>	<u>.0100</u>	<u>.0135</u>	<u>.0171</u>	<u>.0207</u>
<u>.0244</u>	<u>.0282</u>	<u>.0321</u>	<u>.0361</u>	<u>.0402</u>	<u>.0444</u>	<u>.0487</u>
<u>.0532</u>	<u>.0577</u>	<u>.0624</u>	<u>.0673</u>	<u>.0723</u>	<u>.0774</u>	<u>.0828</u>
<u>.0883</u>	<u>.0940</u>	<u>.1000</u>	<u>.1062</u>	<u>.1127</u>	<u>.1194</u>	<u>.1265</u>
<u>.1340</u>	<u>.1418</u>	<u>.1501</u>	<u>.1560</u>	<u>.1621</u>	<u>.1688</u>	<u>.1824</u>
<u>.2138</u>	<u>.2622</u>	<u>.3318</u>	<u>.4269</u>	<u>.5520</u>	<u>.7117</u>	<u>.9106</u>
<u>1.1534</u>	<u>1.3866</u>	<u>1.4823</u>	<u>1.5628</u>	<u>1.6343</u>	<u>1.6993</u>	<u>1.7591</u>

1.8147	1.8666	1.9152	1.9610	2.0042	2.0449	2.0835
2.1201	2.1548	2.1877	2.2189	2.2486	2.2574	2.2645
2.2713	2.2778	2.2841	2.2901	2.2960	2.3016	2.3070
2.3123	2.3175	2.3224	2.3273	2.3320	2.3367	2.3412
2.3456	2.3499	2.3541	2.3582	2.3623	2.3663	2.3702
2.3740	2.3777	2.3814	2.3851	2.3886	2.3922	2.3956
2.3990	2.4024	2.4057	2.4090	2.4122	2.4154	2.4185
2.4216	2.4246	2.4276	2.4306	2.4336	2.4365	2.4393
2.4422	2.4450	2.4478	2.4505	2.4532	2.4559	2.4586
2.4612	2.4638	2.4664	2.4689	2.4715	2.4740	2.4765
2.4789	2.4814	2.4838	2.4862	2.4886	2.4909	2.4932
2.4956	2.4979	2.5001	2.5024	2.5046	2.5069	2.5091
2.5113	2.5134	2.5156	2.5177	2.5199	2.5220	2.5241
2.5262	2.5282	2.5303	2.5323	2.5343	2.5364	2.5384
2.5403	2.5423	2.5443	2.5462	2.5482	2.5501	2.5520
2.5539	2.5558	2.5577	2.5595	2.5614	2.5632	2.5651
2.5669	2.5687	2.5705	2.5723	2.5741	2.5758	2.5776
2.5794	2.5811	2.5828	2.5846	2.5863	2.5880	2.5897
2.5914	2.5931	2.5947	2.5964	2.5981	2.5997	

*

COMPUTE NM HYD ID=1 HYD NO=A1 DA=0.00556 SQ MI
PER A=0 PER B=20 PER C=0 PER D=80
TP=-0.1333 HR MASS RAIN=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000
SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 17.561 CFS UNIT VOLUME = .9987 B =
526.28 P60 = 2.1000
AREA = .004448 SQ MI IA = .10000 INCHES INF =
.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL
ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033300

K = .133173HR TP = .133300HR K/TP RATIO = .999050
SHAPE CONSTANT, N = 3.533693
UNIT PEAK = 2.6927 CFS UNIT VOLUME = .9953 B =
322.78 P60 = 2.1000


```

*          *****


---


PRINT HYD          ID=1 CODE=1


---



```

RUNOFF VOLUME = 2.06177 INCHES = .6114 ACRE-
 FEET
PEAK DISCHARGE RATE = 15.87 CFS AT 1.499 HOURS
BASIN AREA = .0056 SQ. MI.

	OUTFLOW(CFS)		STORAGE(AC FT)
ELEVATION (FT)			
	0.00	0.046	92.80
	1.69	0.083	93.00
	3.16	0.123	93.50
	4.14	0.166	94.00
	4.93	0.210	94.50
	5.61	0.259	95.00
STORAGE-DISCHARGE TABLE EXCEEDED.			

* * * * *

7

.17	.00	92.80	.046	.00
.33	.00	92.80	.046	.00
.50	.00	92.80	.046	.00
.67	.00	92.80	.046	.00
.83	.03	92.80	.046	.00
1.00	.39	92.81	.048	.11
1.17	.47	92.83	.052	.27
1.33	4.51	92.93	.070	1.10
1.50	15.87	94.11	.176	4.32
WARNING - OUTFLOW EXCEEDS RESERVOIR CAPACITY				
1.67	8.17	95.20	.278	5.88
WARNING - OUTFLOW EXCEEDS RESERVOIR CAPACITY				
1.83	5.14	95.28	.287	5.99
2.00	3.69	94.98	.257	5.58
2.16	1.76	94.62	.222	5.10
2.33	.87	94.09	.174	4.28
2.50	.57	93.60	.131	3.35
2.66	.40	93.20	.099	2.28
2.83	.30	92.97	.078	1.47
3.00	.24	92.91	.066	.91
3.16	.20	92.87	.059	.59
3.33	.17	92.85	.055	.40
3.50	.16	92.83	.052	.29
3.66	.15	92.83	.051	.23
3.83	.14	92.82	.050	.19
4.00	.14	92.82	.050	.17
4.16	.13	92.82	.049	.15
4.33	.13	92.82	.049	.14
4.50	.13	92.82	.049	.14
4.66	.13	92.82	.049	.13
4.83	.13	92.82	.049	.13
5.00	.13	92.82	.049	.13
5.16	.13	92.82	.049	.13
5.33	.13	92.82	.049	.13
5.49	.13	92.82	.049	.13
5.66	.13	92.82	.049	.13
5.83	.14	92.82	.049	.13
5.99	.14	92.82	.049	.14
6.16	.05	92.81	.049	.12
6.33	.02	92.81	.048	.08

6.49	.01	92.81	.047	.05
6.66	.00	92.80	.047	.03
6.83	.00	92.80	.046	.02
6.99	.00	92.80	.046	.01
7.16	.00	92.80	.046	.00

WARNING - OUTFLOW EXCEEDS RESERVOIR CAPACITY

PEAK DISCHARGE = 6.050 CFS - PEAK OCCURS AT HOUR
1.76

MAXIMUM WATER SURFACE ELEVATION = 95.323

MAXIMUM STORAGE = .2907 AC-FT INCREMENTAL
TIME= .033300HRS

*
FINISH

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

16:07:40

□□2

Pond 2 Ahymo Input

```
* *****
* POLYFLOW ENGINEERING PONDING CALCS
* *100 YEAR 6 HOUR PROP CONDITIONS
* *****
START      TIME=0.0 HR PUNCH CODE=0 PRINT LINES=-3
RAINFALL   TYPE=1 RAIN QUARTER=0.0
           RAIN ONE=2.1 IN RAIN SIX=2.60 IN
           RAIN DAY=3.10 IN DT=0.0333 HRS
* *****
COMPUTE NM HYD   ID=1 HYD NO=A1 DA=0.00340 SQ MI
           PER A=0 PER B=20 PER C=0 PER D=80
           TP=-0.1333 HR MASS RAIN=-1
* *****
PRINT HYD      ID=1 CODE=1
*
* *****
* Interim POND No. 2 38.4% of entire basin
* *****
ROUTE RESERVOIR   ID=200 HYD=POND1 INFLOW= ID=1
CODE=5
           OUTFLOW(CFS) STORAGE(AC FT) ELEVATION (FT)
           0.00      0.051      93.50
           1.50      0.078      94.00
           2.13      0.107      94.50
           2.61      0.138      95.00
           3.01      0.170      95.50
           3.36      0.205      96.00
*
-
```

POND
2

FINISH

Pond 2 ahymo output

□□□□0

AHYMO PROGRAM (AHYMO 97) - - Version:
1997.02c
RUN DATE (MON/DAY/YR) = 06/01/2005
START TIME (HR:MIN:SEC) = 15:53:51 USER NO.=
AHYMO-I-9702a0100003C-SH
INPUT FILE = K:\PROJECTS\2005\25063\AHYMO~KO.TXT

* *****
* POLYFLOW ENGINEERING PONDING CALCS
* *100 YEAR 6 HOUR PROP CONDITIONS
* *****
START TIME=0.0 HR PUNCH CODE=0 PRINT LINES=-3
RAINFALL TYPE=1 RAIN QUARTER=0.0
RAIN ONE=2.1 IN RAIN SIX=2.60 IN
RAIN DAY=3.10 IN DT=0.0333 HRS

COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED
ON NOAA ATLAS 2 - PEAK AT 1.40 HR.

DT = .033300 HOURS END TIME = 5.994000

HOURS

<u>.0000</u>	<u>.0033</u>	<u>.0066</u>	<u>.0100</u>	<u>.0135</u>	<u>.0171</u>	<u>.0207</u>
<u>.0244</u>	<u>.0282</u>	<u>.0321</u>	<u>.0361</u>	<u>.0402</u>	<u>.0444</u>	<u>.0487</u>
<u>.0532</u>	<u>.0577</u>	<u>.0624</u>	<u>.0673</u>	<u>.0723</u>	<u>.0774</u>	<u>.0828</u>
<u>.0883</u>	<u>.0940</u>	<u>.1000</u>	<u>.1062</u>	<u>.1127</u>	<u>.1194</u>	<u>.1265</u>
<u>.1340</u>	<u>.1418</u>	<u>.1501</u>	<u>.1560</u>	<u>.1621</u>	<u>.1688</u>	<u>.1824</u>
<u>.2138</u>	<u>.2622</u>	<u>.3318</u>	<u>.4269</u>	<u>.5520</u>	<u>.7117</u>	<u>.9106</u>

1.1534	1.3866	1.4823	1.5628	1.6343	1.6993	1.7591
1.8147	1.8666	1.9152	1.9610	2.0042	2.0449	2.0835
2.1201	2.1548	2.1877	2.2189	2.2486	2.2574	2.2645
2.2713	2.2778	2.2841	2.2901	2.2960	2.3016	2.3070
2.3123	2.3175	2.3224	2.3273	2.3320	2.3367	2.3412
2.3456	2.3499	2.3541	2.3582	2.3623	2.3663	2.3702
2.3740	2.3777	2.3814	2.3851	2.3886	2.3922	2.3956
2.3990	2.4024	2.4057	2.4090	2.4122	2.4154	2.4185
2.4216	2.4246	2.4276	2.4306	2.4336	2.4365	2.4393
2.4422	2.4450	2.4478	2.4505	2.4532	2.4559	2.4586
2.4612	2.4638	2.4664	2.4689	2.4715	2.4740	2.4765
2.4789	2.4814	2.4838	2.4862	2.4886	2.4909	2.4932
2.4956	2.4979	2.5001	2.5024	2.5046	2.5069	2.5091
2.5113	2.5134	2.5156	2.5177	2.5199	2.5220	2.5241
2.5262	2.5282	2.5303	2.5323	2.5343	2.5364	2.5384
2.5403	2.5423	2.5443	2.5462	2.5482	2.5501	2.5520
2.5539	2.5558	2.5577	2.5595	2.5614	2.5632	2.5651
2.5669	2.5687	2.5705	2.5723	2.5741	2.5758	2.5776
2.5794	2.5811	2.5828	2.5846	2.5863	2.5880	2.5897
2.5914	2.5931	2.5947	2.5964	2.5981	2.5997	

*

COMPUTE NM HYD ID=1 HYD NO=A1 DA=0.00340 SQ MI
PER A=0 PER B=20 PER C=0 PER D=80
TP=-0.1333 HR MASS RAIN=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000
SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 10.739 CFS UNIT VOLUME = .9982 B =
526.28 P60 = 2.1000
AREA = .002720 SQ MI IA = .10000 INCHES INF =
.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL
ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033300

K = .133173HR TP = .133300HR K/TP RATIO = .999050
SHAPE CONSTANT, N = 3.533693
UNIT PEAK = 1.6466 CFS UNIT VOLUME = .9920 B =
322.78 P60 = 2.1000

```

*                ****
PRINT HYD        ID=1 CODE=1

```

HYDROGRAPH FROM AREA A1

RUNOFF VOLUME = 2.06177 INCHES = .3739 ACRE-
FEET

PEAK DISCHARGE RATE = 9.71 CFS AT 1.499 HOURS
BASIN AREA = .0034 SQ. MI.

```
*  
*****  
Interim POND No. 2 38.4% of entire basin  
*****  
ROUTE RESERVOIR      ID=200 HYD=POND1 INFLOW= ID=1  
CODE=5
```

OUTFLOW(CFS) STORAGE(AC FT)
ELEVATION (FT)

0.00	0.051	93.50
1.50	0.078	94.00
2.13	0.107	94.50
2.61	0.138	95.00
3.01	0.170	95.50
3.36	0.205	96.00

* * * * *

TIME	INFLOW	ELEV	VOLUME	OUTFLOW
(HRS)	(CFS)	(FEET)	(AC-FT)	(CFS)

.00	.00	93.50	.051	.00
.17	.00	93.50	.051	.00

.33	.00	93.50	.051	.00
.50	.00	93.50	.051	.00
.67	.00	93.50	.051	.00
.83	.02	93.50	.051	.00
1.00	.24	93.53	.052	.08
1.17	.29	93.56	.054	.18
1.33	2.76	93.76	.065	.77
1.50	9.71	94.85	.129	2.47
1.67	5.00	95.80	.191	3.22
1.83	3.14	95.93	.200	3.31
2.00	2.26	95.81	.191	3.22
2.16	1.08	95.53	.172	3.03
2.33	.53	95.08	.143	2.67
2.50	.35	94.63	.115	2.26
2.66	.24	94.23	.091	1.79
2.83	.18	93.90	.073	1.21
3.00	.14	93.72	.063	.65
3.16	.12	93.62	.058	.37
3.33	.11	93.58	.055	.23
3.50	.10	93.55	.054	.16
3.66	.09	93.54	.053	.13
3.83	.09	93.54	.053	.11
4.00	.08	93.53	.053	.10
4.16	.08	93.53	.053	.09
4.33	.08	93.53	.053	.08
4.50	.08	93.53	.052	.08
4.66	.08	93.53	.052	.08
4.83	.08	93.53	.052	.08
5.00	.08	93.53	.052	.08
5.16	.08	93.53	.052	.08
5.33	.08	93.53	.052	.08
5.49	.08	93.53	.052	.08
5.66	.08	93.53	.052	.08
5.83	.08	93.53	.052	.08
5.99	.09	93.53	.053	.08
6.16	.03	93.52	.052	.07
6.33	.01	93.51	.052	.04
6.49	.00	93.51	.051	.02
6.66	.00	93.50	.051	.01
6.83	.00	93.50	.051	.01

6.99 .00 93.50 .051 .00
PEAK DISCHARGE = 3.310 CFS - PEAK OCCURS AT HOUR
1.80
MAXIMUM WATER SURFACE ELEVATION = 95.928
MAXIMUM STORAGE = .2000 AC-FT INCREMENTAL
TIME= .033300HRS

*
FINISH

NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) =
15:53:51
□□2

POLY FLOW ENGINEERING

Drainage pond area computations:

25063 Pond 1

6/01/05

diameter = 1.0000

k= 0.6000

A= 0.7854

Inv el. = 92.8000

Height above pond bottom	Pond Elev.	Area (sf)	Average Storage Volume	Cumul. Storage	head	Q
0.0000	92.8000	3,248.0000	-0.1086	0.0456	0.0000	0.0000
0.5000	93.0000	3,340.0000	0.0378	0.0834	0.2000	1.6912
1.0000	93.5000	3,573.0000	0.0397	0.1231	0.7000	3.1640
1.5000	94.0000	3,812.0000	0.0424	0.1655	1.2000	4.1426
2.0000	94.5000	4,054.0000	0.0451	0.2106	1.7000	4.9307
2.5000	95.0000	4,251.0000	0.0477	0.2583	2.2000	5.6091

POLY FLOW ENGINEERING
Drainage pond area computations:
25063 Pond 2
6/01/05

diameter = 0.7500
k= 0.6000
A= 0.4418
Inv el. = 93.5000

Height above pond bottom	Pond Elev.	Area (sf)	Average Storage Volume	Cumul. Storage	head	Q
0.0000	93.5000	2,267.0000	-0.1030	0.0512	0.0000	0.0000
0.5000	94.0000	2,426.0000	0.0269	0.0782	0.5000	1.5042
1.0000	94.5000	2,588.0000	0.0288	0.1069	1.0000	2.1272
1.5000	95.0000	2,752.0000	0.0306	0.1376	1.5000	2.6053
2.0000	95.5000	2,917.0000	0.0325	0.1701	2.0000	3.0083
2.5000	96.0000	3,086.0000	0.0345	0.2046	2.5000	3.3634

June 3, 2005

Mr. Brad Bingham
City of Albuquerque Development Services
600 2nd Street NW
Albuquerque, NM 87102

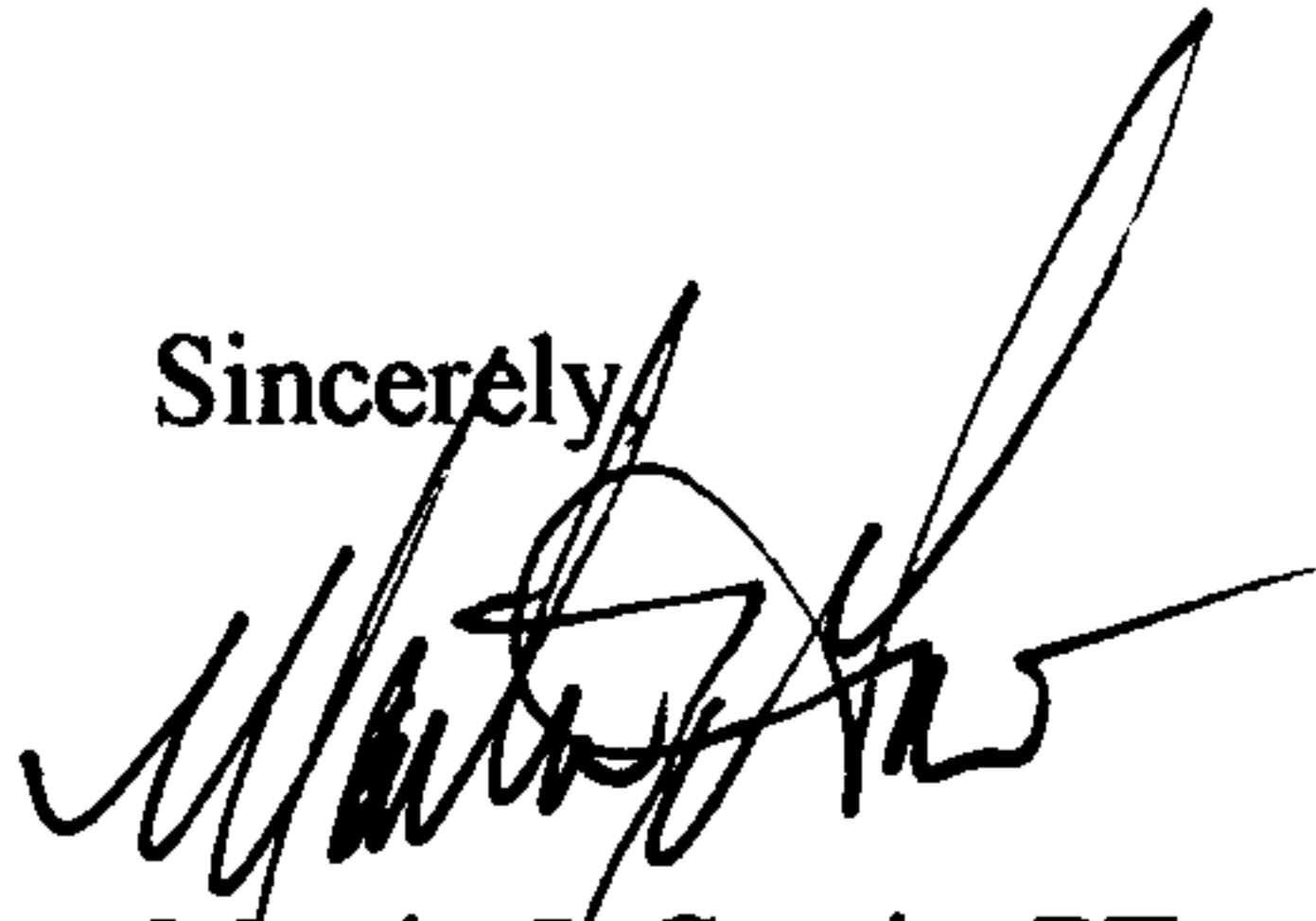
RE: Revised Grading and Drainage Plan for Polyflow Manufacturing

Mr. Bingham:

Enclosed is one blueline copy of the revised Grading and Drainage Plan and Drainage Report Dated June 2, 2005 for Polyflow Manufacturing for your review and approval. The plan was originally submitted to you on May 17, 2005, and was re-submitted on May 25, 2005, but comments received from the design team for the Science and technology park necessitated additional changes. This plan reflects the changes. Please discard the previous submittal.

Please call me at 255-7802 if you have any questions or require additional information.

Sincerely,



Martin J. Garcia, PE
ABQ Engineering, Inc.
25063