CITY OF
Albuquerque

January 23, 1997

Martin J. Chávez, Mayor

Greg Krenik
Mark Goodwin & Assoc.
P.O. Box 90606
Albuquerque, NM 87199

RE: AMTECH SYSTEMS ADDITION (C17-D14B). ENGINEERS CERTIFICATION FOR CERTIFICATE OF OCCUPANCY. ENGINEER'S CERTIFICATION DATED JANUARY 15, 1997.

Dear Mr. Krenik:

Based on the information provided on your January 16, 1997 submittal, the above referenced project is approved for Certificate of Occupancy.

If I can be of further assistance, please feel free to contact me at 768-3622.

Sincerely,

Lisa Ann Manwill
Engineering Assoc./Hyd.

c: Andrew Garcia
File

D. MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS & SURVEYORS

PROJECT Amtech
SUBJECT Drainage
BY MG DATE 10/6/92
CHECKED _____ DATE _____
SHEET 1 OF 7

The existing site discharges to a storm drain system in Jefferson Constructed as part of SR0 241. This portion of the storm drain requires controlled discharge to the developed 10 year rate. We will have to pond the difference.

There is also an 8.3 AC portion of the lot to the east that drains through this site - We will route these flows through. In the future they may discharge to pond also. We will determine both rates to insure capacity for the ultimate.

ON-SITE

There are 4 internal drainage areas:

D.A. 1 - 1.2 AC. discharges directly

D.A. 2 - 0.80 AC. discharges to a drop inlet & is conveyed to pond in front.

D.A. 3 - 4.10 AC. discharges to drop inlet & conveyed to pond in front.

D.A. 4 - 2.2 AC. discharges thru curb opening into pond in front.

Composite "C"

D.A. 1

Pavng	0.79	0.95	0.75
Roofs	0	0.90	0
Landsc+pc	0.41	0.25	0.10
	1.2		0.85

C = 0.71

D. MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS & SURVEYORS

PROJECT Antioch
SUBJECT Drainage
BY MG DATE 10/6/92
CHECKED _____ DATE _____
SHEET 2 OF 7

D.A. 2 :

Paving	.80	.95		
Roof	0	.90		C = 0.95
Landscape	0	.25		
	.80			

D.A. 3 :

Paving	2.53	0.95	2.40	
Roof	0.76	0.90	0.68	C = 0.80
Landscape	0.21	0.25	0.20	
	4.1		3.28	

D.A. 4 :

Paving	0.93	0.95	0.88	
Roof	0.76	0.90	0.68	C = 0.77
Landscape	0.51	0.25	0.13	
	2.2		1.69	

P for all areas = 2.20 in (100 Yr.) = 2.2(.68) = 1.50 (10 Yr.)

T for all areas < 10 min.

I = 4.65 in/Hr 100 Year

= 3.16 in/Hr 10 Year

D. MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS & SURVEYORS

PROJECT Amtech
SUBJECT Drainage
BY MG DATE 10/6/92
CHECKED _____ DATE _____
SHEET 3 OF 7

D.A. 1: Q(10) = 2.7 cfs
Q(100) = 4 cfs

D.A. 2: Q(10) = 2.4 cfs
Q(100) = 3.5 cfs

D.A. 3: Q(10) = 10.4 cfs
Q(100) = 15.3 cfs

D.A. 4: Q(10) = 5.4 cfs
Q(100) = 7.9 cfs

Allowable discharge rate = 21 cfs however we are going to discharge D.A. 1 Q(100) = 4 cfs directly to DA = 17 cfs

Ponding Volume req'd: using SCS

D.A. 1:

Vol.(10) = 1.68(V100) = 4150
Vol.(100) = 1.4(1.2) = 6100 cu. ft.

D.A. 2:

Vol.(10) = 3357 cu. ft.
Vol.(100) = 1.7(0.80) = 4937 cu. ft.

4.1
3.5
15.3
7.9
2.4

D. MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS & SURVEYORS

PROJECT Antioch
SUBJECT Drainage
BY MG DATE 10/6/82
CHECKED _____ DATE _____
SHEET 4 OF 7

D.A. 3:

Vol. (10) = 14,150 cu. Ft.

Vol. (100) = 1.4(4.1) = 20,800 cu. Ft.

D.A. 4:

Vol. (10) = 7602 cu. Ft.

Vol. (100) = 1.4(2.2) = 11,180 cu. Ft.

Since D.A. 1 discharges directly to Docs not figure in at all.

Vol. (10) Total = 25,109 cu. Ft. } 11,802 cuft

Vol. (100) Total = 36,917 cu. Ft. }

Ponding Vol. Req'd = 11,800 cu. Ft.

Ponding Vol. Prov'd. = 14,300 cu. Ft.

D. MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS & SURVEYORS

PROJECT Antioch
SUBJECT Drainage
BY MG DATE 10/8/92
CHECKED _____ DATE _____
SHEET 5 OF 7

We now need to calculate the off-site 100 yr undeveloped & the 10 yr developed flows to insure we can handle these flows.

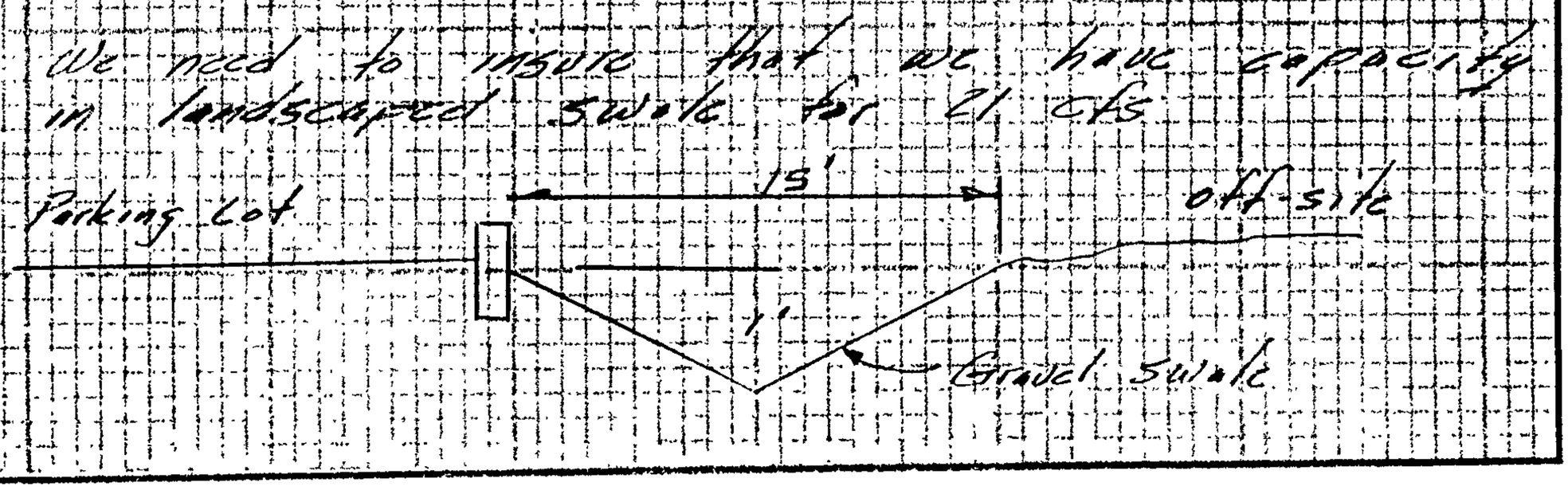
Undeveloped

C = 0.40 Bare Ground
P = 2.2 in.
T_c = 10 min.
I = 4.65 in/hr
A = 8.3 Ac
Q(100) = 15 cfs

Developed

C = 0.80 Assumed
P = 1.50 in
I = 3.10 in/hr
Q(10) = 21 cfs

We need to insure that we have capacity in landscaped swale for 21 cfs



D. MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS & SURVEYORS

PROJECT Amtech
SUBJECT Drainage
BY MG DATE 10/8/92
CHECKED _____ DATE _____
SHEET 6 OF 7

n = 0.035 S = 2% ± A = 15 sf WP = 30.07'

V = 2.12 fps ⟶ Q = AV = 32 cfs > 21 cfs O.K.

We now need to size Type "D" Drop Inlets.

D.A. 2

Q(100) = 3.5 cfs

Allowable H = 0.5' Sump condition

From Attached Nomograph

A single "D" is required

D.A. 3

Q(100) = 15 cfs ⟶ We need a double "D"

We now need to size Connector Pipes

From D.A. 2 to D.A. 3 for Q = 3.5 cfs S = 0.5%

Pipe ϕ = 15"

From D.A. 3 to Pond Q = 19 cfs S = 0.50%

Pipe ϕ = 24"

D. MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS & SURVEYORS

PROJECT Amtech
SUBJECT Drainage
BY MG DATE 10/8/92
CHECKED _____ DATE _____
SHEET 7 OF 7

We now need to size Principal Outlet for $Q_4 = 17$ cfs. This outlet will act as an orifice.

$Q = CA\sqrt{2gH}$

$H = 2'$

$C = 0.8$

Using 18" → $A = 1.77$ sf

$Q = 16$ cfs Close enough

Need to size Emergency Spillway weir

$Q = CLH^{3/2}$

$L = \frac{Q}{CH^{3/2}} = \frac{27}{2.9(.5)^{3/2}} = 26'$

$\frac{143.0}{16} = 8.9$ sf

$\frac{893.75}{60} = 14.89$ cfs/ft

$14.89 \times 60 = 893.4$ cfs/hr

24 HR

CITY OF
Albuquerque

October 11, 1996

Martin J. Chávez, Mayor

Greg Krenik
Mark Goodwin & Assoc.
P.O. Box 90606
Albuquerque, NM 87199

RE: AMTECH SYSTEMS ADDITION (C17-D14B). GRADING PLAN SUBMITTAL FOR BUILDING PERMIT APPROVAL. ENGINEER'S STAMP DATED 9-27-96.

Dear Mr. Krenik:

Based on the information provided on your September 30, 1996 submittal, the above referenced project is approved for Building Permit.

Prior to Certificate of Occupancy, an Engineer's Certification will be required.

If I can be of further assistance, please feel free to contact me at 768-3622.

Sincerely,

Lisa Ann Manwill
Engineering Assoc./Hyd.

c: Andrew Garcia
File

DRAINAGE INFORMATION SHEET

PROJECT TITLE: AMTECH SYSTEMS ADDITION ZONE ATLAS/DRNG,FILE#: C-17/D148

DRB #: _____ EPC #: _____ WORK ORDER #: _____

LEGAL DESCRIPTION: TRACT C, LOOP INDUSTRIAL DISTRICT

CITY ADDRESS: 8600 Jefferson N.E.

ENGINEERING FIRM: MARK GOODWIN & ASSOCIATES CONTACT: GREGORY J. KRENIK

ADDRESS: PO Box 90606 PHONE: 345-2010

OWNER: AMTECH CONTACT: MARK SCHIFF

ADDRESS: 105 4th STREET SW PHONE: 843-9369

ARCHITECT: DCSW CONTACT: MARK SCHIFF

ADDRESS: 105 4th STREET SW PHONE: 843-9369

SURVEYOR: N/A CONTACT: _____

ADDRESS: _____ PHONE: _____

CONTRACTOR: N/A CONTACT: _____

ADDRESS: _____ PHONE: _____

TYPE OF SUBMITTAL:

_____ DRAINAGE REPORT
X DRAINAGE PLAN
_____ CONCEPTUAL GRADING & DRAINAGE PLAN
X GRADING PLAN
_____ EROSION CONTROL PLAN
_____ ENGINEER'S CERTIFICATION
_____ OTHER

PRE-DESIGN MEETING:

_____ YES
X NO
_____ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

_____ SKETCH PLAT APPROVAL
_____ PRELIMINARY PLAT APPROVAL
_____ S. DEV. PLAN FOR SUB'D APPROVAL
_____ S. DEV. PLAN FOR BLDG PERMIT APPROVAL
_____ SECTOR PLAN APPROVAL
_____ FINAL PLAT APPROVAL
X FOUNDATION PERMIT APPROVAL
X BUILDING PERMIT APPROVAL
_____ CERTIFICATION OF OCCUPANCY APPROVAL
_____ GRADING PERMIT APPROVAL
_____ PAVING PERMIT APPROVAL
_____ S.A.D. DRAINAGE REPORT
_____ DRAINAGE REQUIREMENTS
X OTHER need Foundation (Specify)
Approval this week - before 10-4

DATE SUBMITTED: 9-30-96

BY: Gregory J. Krenik

RECEIVED
SEP 30 1996
DRAINAGE DIVISION

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

June 24, 1993

Mark Goodwin
D. Mark Goodwin & Associates
P.O. Box 90606
Albuquerque, NM 87199

RE: REVISED ENGINEER CERTIFICATION FOR AMTECH SYSTEMS (C17-D14B)

Dear Mr. Goodwin:

Based on the information provided on your June 14, 1993 resubmittal, Engineer Certification for the above referenced site is acceptable.

If I can be of further assistance, please feel free to contact me at 768-2667.

Sincerely,

Bernie J. Montoya

Bernie J. Montoya, CE
Engineer Associate

BJM/dl/WPHYD/3748

xc: Alan Martinez
File

D. Mark Goodwin & Associates, P.A.
Consulting Engineers and Surveyors
P.O. BOX 90606, ALBUQUERQUE, NM 87199
(505) 828-2200

June 22, 1993

Mr. Bernie Montoya
Hydrology Department
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87199

Re: Amtech Systems; C-17/D14B

Dear Mr. Montoya:

We are in receipt of your letter dated June 17, 1993, and we offer the following:

1. Additional spot elevations were obtained and added to drawing.

2. Our field data indicates that pond was built per the approved plan. The ponding calculations on file remain valid.

3. Attached please find a copy of the "green" tag for the S.O. 19.

4. Each inlet has been "As-Built."

This certification should resolve any outstanding issues. However, please contact our office if you have further comments.

Sincerely,

D. MARK GOODWIN AND ASSOCIATES, P.A.

Mark Goodwin

Mark Goodwin, P.E.

DMG:smr

Attachment

JUL 21 '93 10:56 JAMES CONSTRUCTION

PUBLIC WORKS DEPARTMENT

SIDEWALK & DRIVEPAD INSPECTION

Starting

APPROVED

Inspector

Phone:	Permits	Dispatch	Insp. Office
	768-255	857-8025	857-8036

Date 6-18-93 Permit No. 435231

Contractor Haynes Corp

Location 8600 Jefferson Pl

Time

DRAINAGE INFORMATION SHEET

PROJECT TITLE: AMTECH SYSTEMS ZONE ATLAS/DRNG.FILE#: C-17 / D14B

LEGAL DESCRIPTION: Tract C Loop Industrial District
CITY ADDRESS: JEFFERSON AND WILSHIRE

ENGINEERING FIRM: D. MARK GOODWIN & ASSOCIATES, PA CONTACT: MARK GOODWIN
ADDRESS: P.O. BOX 90606 ALB, NM 87199 PHONE: 828-2200

OWNER: AMTECH SYSTEMS CONTACT: DAVID DEKKER
ADDRESS: 105 4TH STREET SW, ALB, NM 87102 PHONE: 843-9639

ARCHITECT: DESIGN COLLABORATIVE SOUTHWEST CONTACT: MARC SHIFF
ADDRESS: 105 4TH STREET SW, ALB, NM 87102 PHONE: 843-9639

SURVEYOR: D. MARK GOODWIN & ASSOCIATES, PA CONTACT: RICHARD BORGEL
ADDRESS: P.O. BOX 90606, ALB, NM 87199 PHONE: 828-2200

CONTRACTOR: JAYNES Corp. CONTACT: Gordon Birch
ADDRESS: _____ PHONE: 345-8591

PRE-DESIGN MEETING

____ YES
_X_ NO
____ COPY OF CONFERENCE RECAP SHEET PROVIDED

DRB NO. _____
EPC NO. _____
PROJ NO. _____

TYPE OF SUBMITTAL

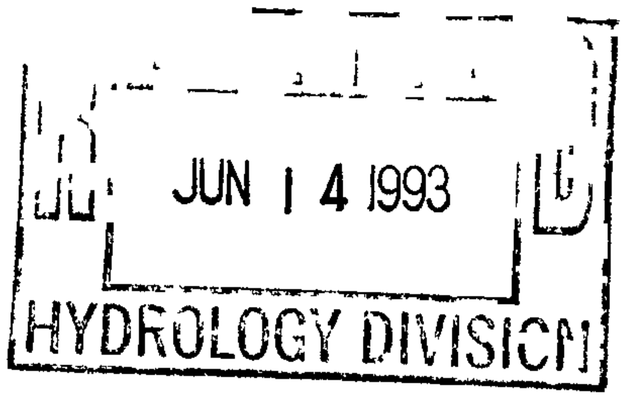
____ DRAINAGE REPORT
____ DRAINAGE PLAN
____ CONCEPTUAL GRADING & DRAINAGE PLAN
____ GRADING PLAN
____ EROSION PLAN
_X_ ENGINEER'S CERTIFICATION

TYPE OF APPROVAL SOUGHT

____ SKETCH PLAT APPROVAL
____ PRELIMINARY PLAT APPROVAL
____ SITE DEVELOPMENT PLAN APPROVAL
____ FINAL PLAT APPROVAL
____ BUILDING PERMIT APPROVAL
____ FOUNDATION PERMIT APPROVAL
_X_ CERTIFICATION OF OCCUPANCY APPROVAL
____ ROUGH GRADING PERMIT APPROVAL
____ GRADING / PAVING PERMIT APPROVAL
____ OTHER _____

DATE SUBMITTED: 6/11/93

BY: Mark Goodwin
MARK GOODWIN, PE



25-0910

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

June 17, 1993

Mark Goodwin
D. Mark Goodwin & Associates
P.O. Box 90606
Albuquerque, NM 87199

RE: ENGINEER CERTIFICATION FOR AMTECH SYSTEMS (C17-D14B) CERTIFICATION STATEMENT DATED 6/12/93.

Dear Mr. Goodwin:

Based on the information provided on your June 14, 1993 submittal, Engineer Certification is not acceptable at this time for the following reasons:

1. Please include as-built spot elevation on the details so as to determine if the outlets and spillways have been built to the approved design.

2. Please provide the as-built pond calculations along with the as-built maximum water depth.

3. I will need concurrence that the S.O. 19 construction was inspected and accepted.

4. Please provide the as-built invert elevation for each inlet.

5. I highly recommend that you use the Engineer's Certification checklist as a guide to provide the required information on your resubmittal.

If I can be of further assistance, please feel free to contact me at 768-2667.

Sincerely,

Bernie J. Montoya, CE
Engineer Associate

BJM/dl/WPHYD/3748

xc: Alan Martinez
File

PUBLIC WORKS DEPARTMENT

Walter H. Nickerson, Jr., P.E.
Assistant Director Public Works

ENGINEERING GROUP

Telephone (505) 768-2500

DRAINAGE INFORMATION SHEET

PROJECT TITLE: AMTECH SYSTEMS ZONE ATLAS/DRNG.FILE#: C-17 / D148

LEGAL DESCRIPTION: Tract C Loop Industrial District
CITY ADDRESS: JEFFERSON AND WILSHIRE

ENGINEERING FIRM: D. MARK GOODWIN & ASSOCIATES, PA CONTACT: MARK GOODWIN
ADDRESS: P.O. BOX 90606 ALB, NM 87199 PHONE: 828-2200

OWNER: AMTECH SYSTEMS CONTACT: DAVID DEKKER
ADDRESS: 105 4TH STREET SW, ALB, NM 87102 PHONE: 843-9639

ARCHITECT: DESIGN COLLABORATIVE SOUTHWEST CONTACT: MARC SHIFF
ADDRESS: 105 4TH STREET SW, ALB, NM 87102 PHONE: 843-9639

SURVEYOR: D. MARK GOODWIN & ASSOCIATES, PA CONTACT: RICHARD BORGEL
ADDRESS: P.O. BOX 90606, ALB, NM 87199 PHONE: 828-2200

CONTRACTOR: N/A CONTACT: _____
ADDRESS: _____ PHONE: _____

PRE-DESIGN MEETING

____ YES
_X_ NO
____ COPY OF CONFERENCE RECAP SHEET PROVIDED

DRB NO. _____
EPC NO. _____
PROJ NO. _____

TYPE OF SUBMITTAL

____ DRAINAGE REPORT
_X_ DRAINAGE PLAN
____ CONCEPTUAL GRADING & DRAINAGE PLAN
_X_ GRADING PLAN
____ EROSION PLAN
____ ENGINEER'S CERTIFICATION

TYPE OF APPROVAL SOUGHT

____ SKETCH PLAT APPROVAL
____ PRELIMINARY PLAT APPROVAL
____ SITE DEVELOPMENT PLAN APPROVAL
____ FINAL PLAT APPROVAL
_X_ BUILDING PERMIT APPROVAL
____ FOUNDATION PERMIT APPROVAL
____ CERTIFICATION OF OCCUPANCY APPROVAL
____ ROUGH GRADING PERMIT APPROVAL
____ GRADING / PAVING PERMIT APPROVAL
____ OTHER _____

DATE SUBMITTED: _____

: _____
MARK GOODWIN, PE

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

November 2, 1992

Mark Goodwin
D. Mark Goodwin & Associates
P.O. Box 90606
Albuquerque, NM 87199

RE: REVISED DRAINAGE PLAN FOR AMTECH SYSTEMS (C17-D14B) ENGINEER'S STAMP DATED REVISION 10/23/92.

Dear Mr. Goodwin:

Based on the information provided on your October 23, 1992 submittal, the above referenced site is approved for Building Permit.

Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology.

Also, a separate permit for construction within City Right-Of-Way is required. A copy of this approval letter must be on hand when applying for the excavation permit.

Please be advised that prior to Certificate of Occupancy release, Engineer's certification per the D.P.M. checklist will be required.

If I can be of further assistance, feel free to contact me at 768-2667.

Sincerely,

Bernie J. Montoya

Bernie J. Montoya, CE
Engineering Assistant

BJM/dl/WPHYD/3748

xc: Alan Martinez
Darlene Saavedra
file

PUBLIC WORKS DEPARTMENT

Walter H. Nickerson, Jr., P.E.
Assistant Director Public Works

ENGINEERING GROUP

Telephone (505) 768-2500

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

October 20, 1992

Mark Goodwin
D. Mark Goodwin & Associates
P.O. Box 90606
Albuquerque, NM 87199

RE: DRAINAGE PLAN FOR AMTECH SYSTEMS (C17-D14B) ENGINEER'S STAMP DATED 10/9/92.

Dear Mr. Goodwin:

Based on the information provided on your October 12, 1992 submittal, listed are some concerns that will need to be addressed prior to final approval:

1. Indicate the 100 year water surface elevation on the plan drawing.

2. Provide a cross section of the proposed front pond. Indicate all elevations.

3. How long will it take for the pond to empty?

4. No roof runoff will be allowed to pond adjacent to the building. Please address.

5. For ponds 18" deep or less, water may be impounded adjacent to street Right of Way, but no closer than 10' from pavement. For ponds deeper than 18", water shall not pond closer than 15' to the street pavement or curb & gutter.

6. What type of landscaping is proposed within the ponding area?

If I can be of further assistance, please feel free to contact me at 768-2667.

Sincerely,

Bernie J. Montoya

Bernie J. Montoya, CE
Engineering Assistant

BJM/dl/WPHYD/3717

xc: File

D. Mark Goodwin & Associates, P.A.
Consulting Engineers and Surveyors
P.O. BOX 90606, ALBUQUERQUE, NM 87199
(505) 828-2200

October 23, 1992

Mr. Bernie Montoya
City of Albuquerque
Hydrology Department
P.O. Box 1293
Albuquerque, NM 87199

Re: Amtech Systems (C17-D14B)

Dear Mr. Montoya:

Thank you for your timely review of the above-referenced project. We offer the following response to your concerns.

1. 100 year water surface is now shown.

2. Cross-section is now provided.

3. Pond will drain in 1.93 Hrs.

4. We have placed an inlet in landscaped area to collect runoff; there will be no ponding.

5. Landscaping in ponding area is still unclear at this time. Is this a problem?

Again, we appreciate your timeliness. Call if we can be of further service.

Sincerely,

D. MARK GOODWIN AND ASSOCIATES, P.A.

Mark Goodwin

Mark Goodwin, P.E.

DMG:smr

DRAINAGE INFORMATION SHEET

PROJECT TITLE: AMTECH SYSTEMS ZONE ATLAS/DRNG.FILE#: C-17/D14B

LEGAL DESCRIPTION: Tract C Coop Industrial District
CITY ADDRESS: JEFFERSON AND WILSHIRE

ENGINEERING FIRM: D. MARK GOODWIN & ASSOCIATES, PA CONTACT: MARK GOODWIN
ADDRESS: P.O. BOX 90606 ALB, NM 87199 PHONE: 828-2200

OWNER: AMTECH SYSTEMS CONTACT: DAVID DEKKER
ADDRESS: 105 4TH STREET SW, ALB, NM 87102 PHONE: 843-9639

ARCHITECT: DESIGN COLLABORATIVE SOUTHWEST CONTACT: MARC SHIFF
ADDRESS: 105 4TH STREET SW, ALB, NM 87102 PHONE: 843-9639

SURVEYOR: D. MARK GOODWIN & ASSOCIATES, PA CONTACT: RICHARD BORGEL
ADDRESS: P.O. BOX 90606, ALB, NM 87199 PHONE: 828-2200

CONTRACTOR: N/A CONTACT: _____
ADDRESS: _____ PHONE: _____

PRE-DESIGN MEETING

____ YES
_X_ NO
____ COPY OF CONFERENCE RECAP SHEET PROVIDED

DRB NO. _____
EPC NO. _____
PROJ NO. _____

TYPE OF SUBMITTAL

____ DRAINAGE REPORT
_X_ DRAINAGE PLAN
____ CONCEPTUAL GRADING & DRAINAGE PLAN
_X_ GRADING PLAN
____ EROSION PLAN
____ ENGINEER'S CERTIFICATION

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____ SITE DEVELOPMENT PLAN APPROVAL
____ FINAL PLAT APPROVAL
_X_ BUILDING PERMIT APPROVAL
____ FOUNDATION PERMIT APPROVAL
____ CERTIFICATION OF OCCUPANCY APPROVAL
____ ROUGH GRADING PERMIT APPROVAL
____ GRADING / PAVING PERMIT APPROVAL
____ OTHER _____

DATE SUBMITTED: 10/26/92

BY: Mark Goodwin
MARK GOODWIN, PE

RECEIVED
OCT 23 1992
HYDROLOGY DIVISION