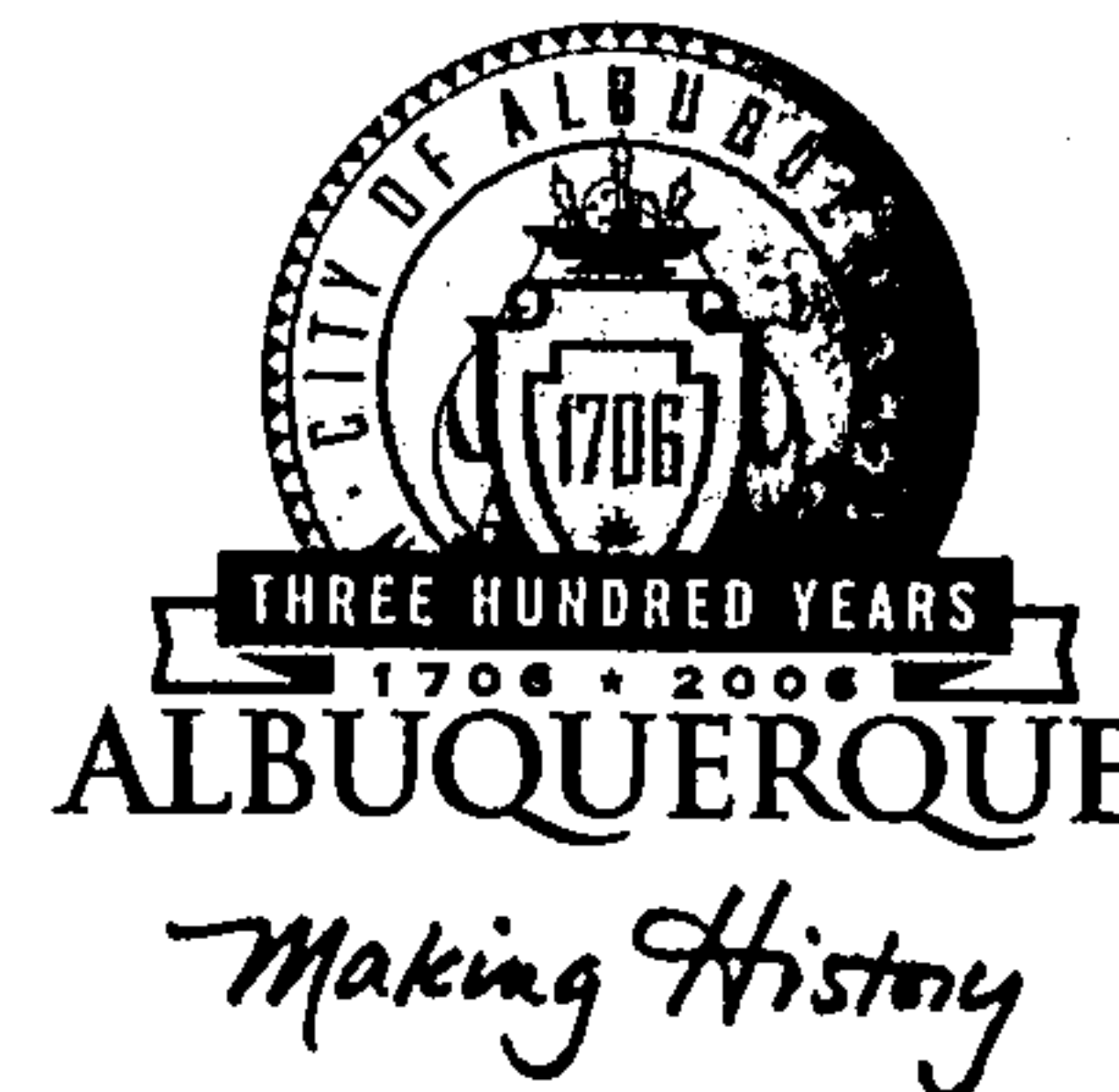


CITY OF ALBUQUERQUE



January 12, 2005

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

Re: Octopus Car Wash at Redlands Shopping Center, Grading and Drainage Plan
Engineer's Stamp dated 11-12-04 (G11-D63A)

Dear Mr. Biazar,

Based upon the information provided in your submittal received 11-12-04, 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

Albuquerque

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).

New Mexico 87103

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

Sincerely,

Kristal D. Metro
Engineering Associate, Planning Dept.
Development and Building Services

www.cabq.gov

C: Charles Caruso, DMD Storm Drainage Design
File

DRAINAGE INFORMATION SHEET

(REV. 1/28/2003rd)

PROJECT TITLE: Redlands Shopping Center / Octopus Carwash ZONE ATLAS/DRG. FILE #: G11/D63A
DRB #: _____ EPC #: _____ WORK ORDER #: _____

LEGAL DESCRIPTION: Tract A-28-B1 and A-28-B2, NE Unit, Town of Atrisco
CITY ADDRESS: _____

ENGINEERING FIRM: Advanced Engineering and Consulting, LLC
ADDRESS: 4416 Anaheim Ave., NE
CITY, STATE: Albuquerque, New Mexico

CONTACT: Shahab Biazar
PHONE: (505) 899-5570
ZIP CODE: 87113

OWNER: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

ARCHITECT: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

SURVEYOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

CONTRACTOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

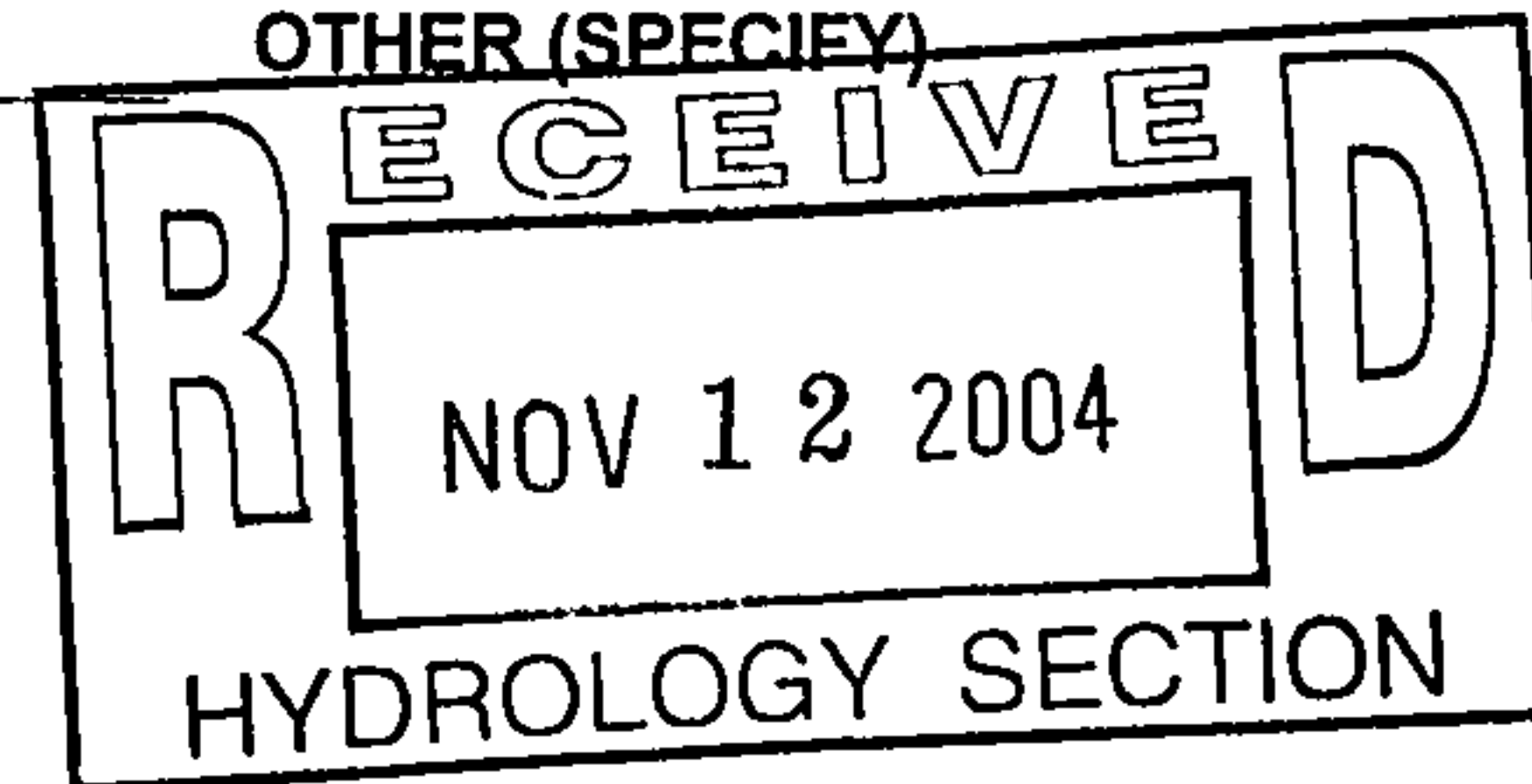
CHECK TYPE OF SUBMITTAL:

____ DRAINAGE REPORT
____ DRAINAGE PLAN 1ST SUBMITTAL, REQUIRES TCL OR EQUAL
____ CONCEPTUAL GRADING & DRAINAGE PLAN
☒ GRADING PLAN
____ EROSION CONTROL PLAN
____ ENGINEER'S CERTIFICATION (HYDROLOGY)
____ CLOMR / LOMR
____ TRAFFIC CIRCULATION LAYOUT (TCL)
____ ENGINEER'S CERTIFICATION (TCL)
____ ENGINEER'S 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:

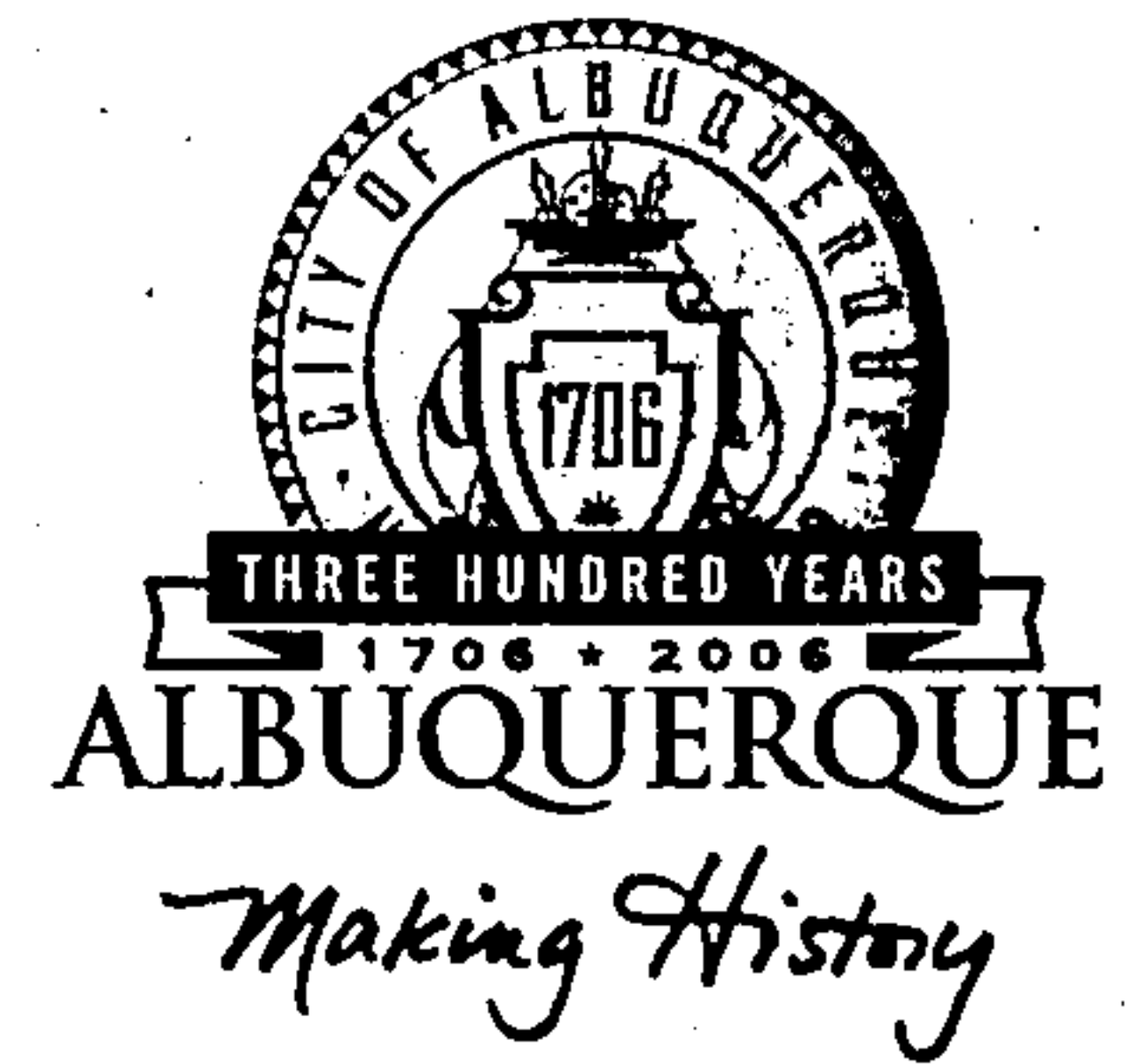
____ YES
☒ NO
____ COPY PROVIDED

DATE SUBMITTED: 11 / 12 / 2004 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)
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

CITY OF ALBUQUERQUE



October 6, 2005

Mr. Shahab Biazar, P.E.
**ADVANCED ENGINEERING
AND CONSULTING, LLC**
4416 Anaheim Avenue NE
Albuquerque, NM 87113

Re: OCTOPUS CAR WASH AT REDLANDS
3101 Coors Blvd. NW
Approval of Temporary Certificate of Occupancy (C.O.)
Approved Engineer's Stamp dated 11/12/2004 (G-11/D63A)
Certification dated 10/06/2005

Dear Shahab:

P.O. Box 1293

Based upon the information provided in your submittal received 10/06/2005, the above referenced certification is approved for release of 30-day Temporary Certificate of Occupancy by Hydrology.

Albuquerque

Upon acceptance of noted exception(s) listed in your Drainage Certification, please resubmit an updated Certification for Permanent C.O.

New Mexico 87103

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

www.cabq.gov

Sincerely,

Arlene V. Portillo

Arlene V. Portillo

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

C: Phyllis Villanueva
File

DRAINAGE INFORMATION SHEET

(REV. 1/28/2003rd)

PROJECT TITLE: Redlands Shopping Center / Octopus Carwash ZONE ATLAS/DRG. FILE #: G11/D63A
 DRB #: _____ EPC #: _____ WORK ORDER #: _____

LEGAL DESCRIPTION: Tract A-28-B1 and A-28-B2, NE Unit, Town of Atrisco

CITY ADDRESS: 3101 Coors Rd NW

ENGINEERING FIRM: Advanced Engineering and Consulting, LLC
 ADDRESS: 4416 Anahdm Ave., NE
 CITY, STATE: Albuquerque, New Mexico

CONTACT: Shahab Blazar
 PHONE: (505) 899-5570
 ZIP CODE: 87113

OWNER: _____
 ADDRESS: _____
 CITY, STATE: _____

CONTACT: _____
 PHONE: _____
 ZIP CODE: _____

ARCHITECT: _____
 ADDRESS: _____
 CITY, STATE: _____

CONTACT: _____
 PHONE: _____
 ZIP CODE: _____

SURVEYOR: _____
 ADDRESS: _____
 CITY, STATE: _____

CONTACT: _____
 PHONE: _____
 ZIP CODE: _____

CONTRACTOR: _____
 ADDRESS: _____
 CITY, STATE: _____

CONTACT: _____
 PHONE: _____
 ZIP CODE: _____

CHECK TYPE OF SUBMITTAL:

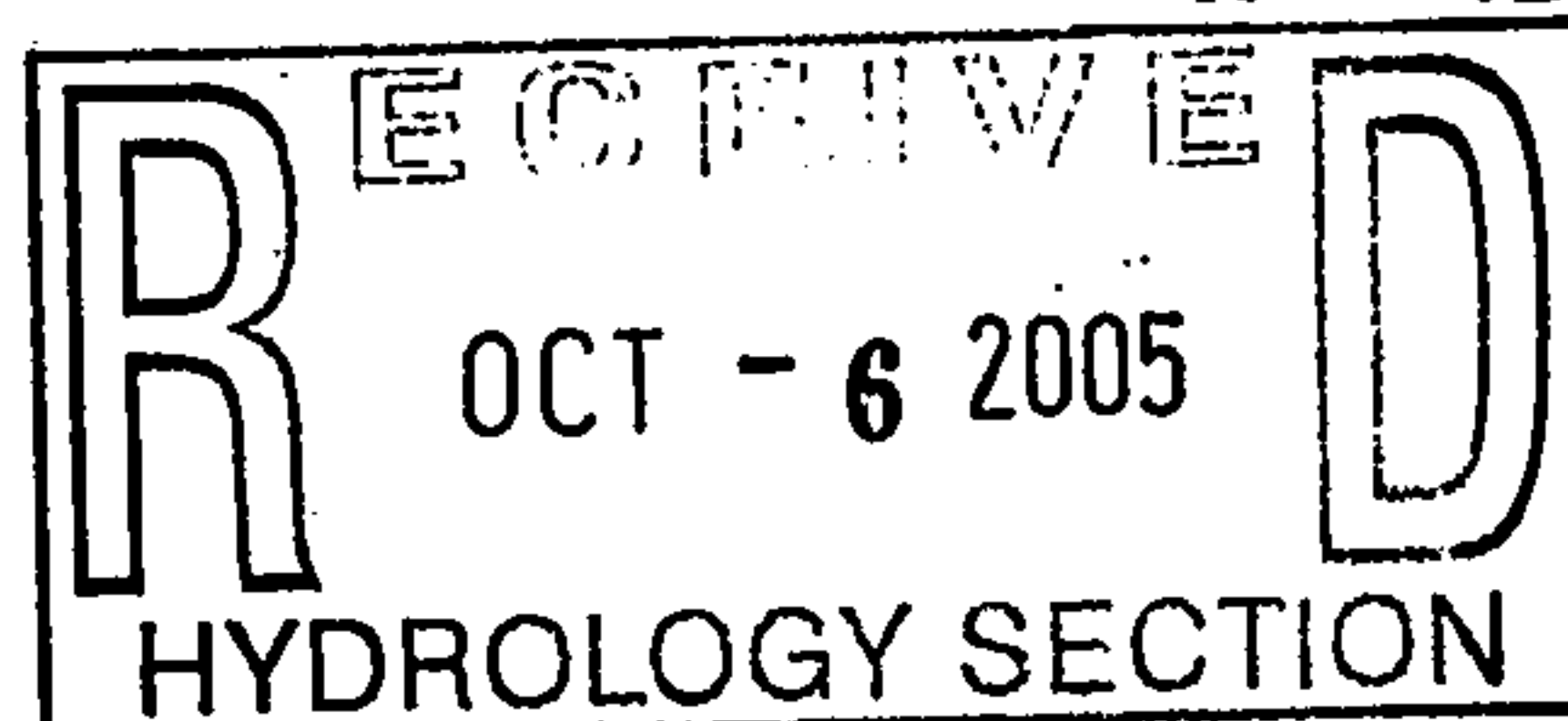
☐ DRAINAGE REPORT
☐ DRAINAGE PLAN 1ST SUBMITTAL, REQUIRES TCL OR EQUAL
☐ CONCEPTUAL GRADING & DRAINAGE PLAN
☐ GRADING PLAN
☐ EROSION CONTROL PLAN
☐ ENGINEER'S CERTIFICATION (HYDROLOGY)
☐ CLOMR / LOMR
☐ TRAFFIC CIRCULATION LAYOUT (TCL)
☐ ENGINEER'S CERTIFICATION (TCL)
☐ ENGINEER'S CERTIFICATION (DRB APPR. SITE PLAN)
☒ TEMPORARY CERTIFICATION OF OCCUPANCY LETTER

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
☒ TEMPORARY CERTIFICATION OF OCCUPANCY

WAS A PRE-DESIGN CONFERENCE ATTENDED:

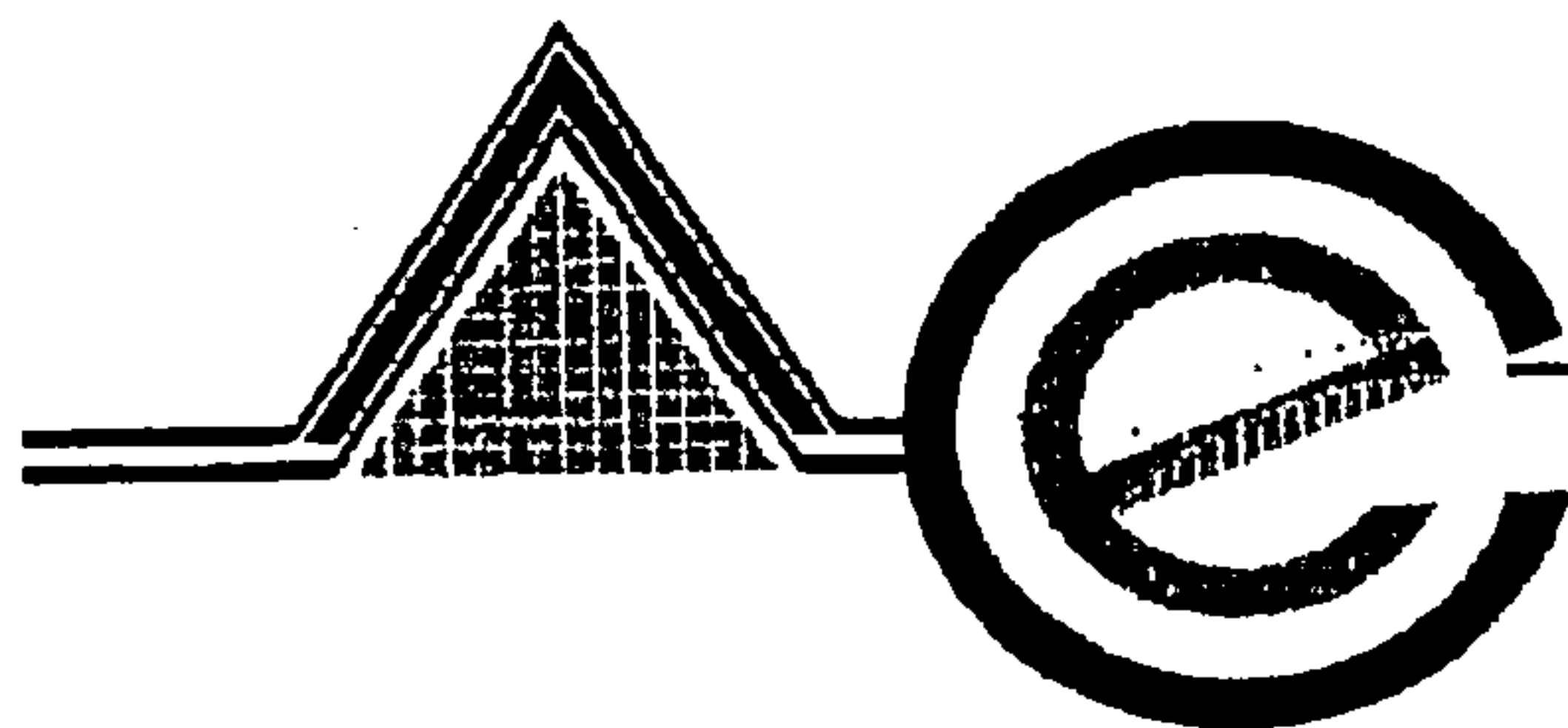
☐ YES
☒ NO
☐ COPY PROVIDED



DATE SUBMITTED: 10 / 06 / 2005 BY: Shahab Blazar, 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)
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

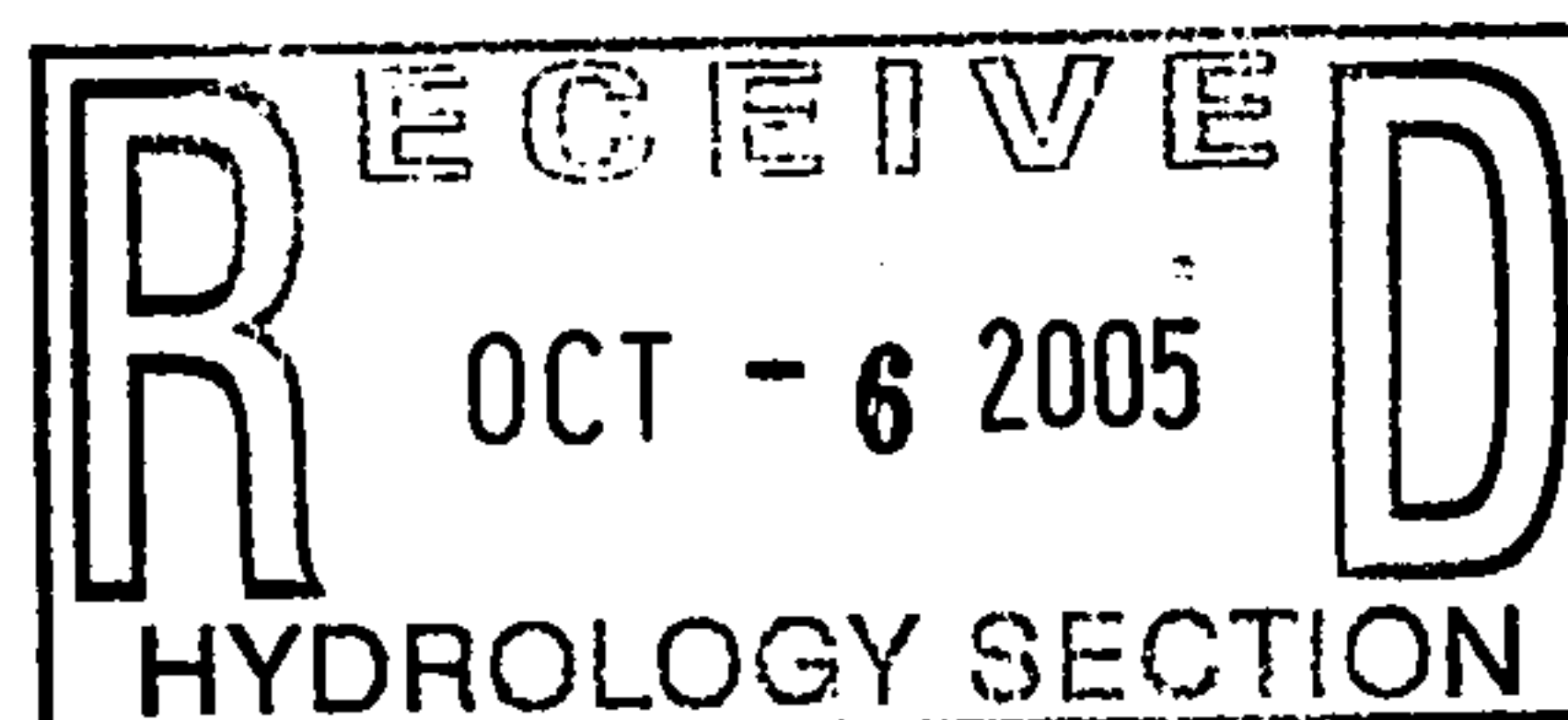


ADVANCED ENGINEERING and CONSULTING, LLC

Consulting
Design
Development
Management
Inspection
Surveying

October 6, 2005

Ms. Kristal Metro
Engineer Associate, Planning Dept.
Development and Building Services
600 Second Street NW
Albuquerque, New Mexico 87102



RE: TEMPORARY CERTIFICATION OF OCCUPANCY FOR OCTOPUS CARWASH
(G11/D63A).

Dear Ms. Metro:

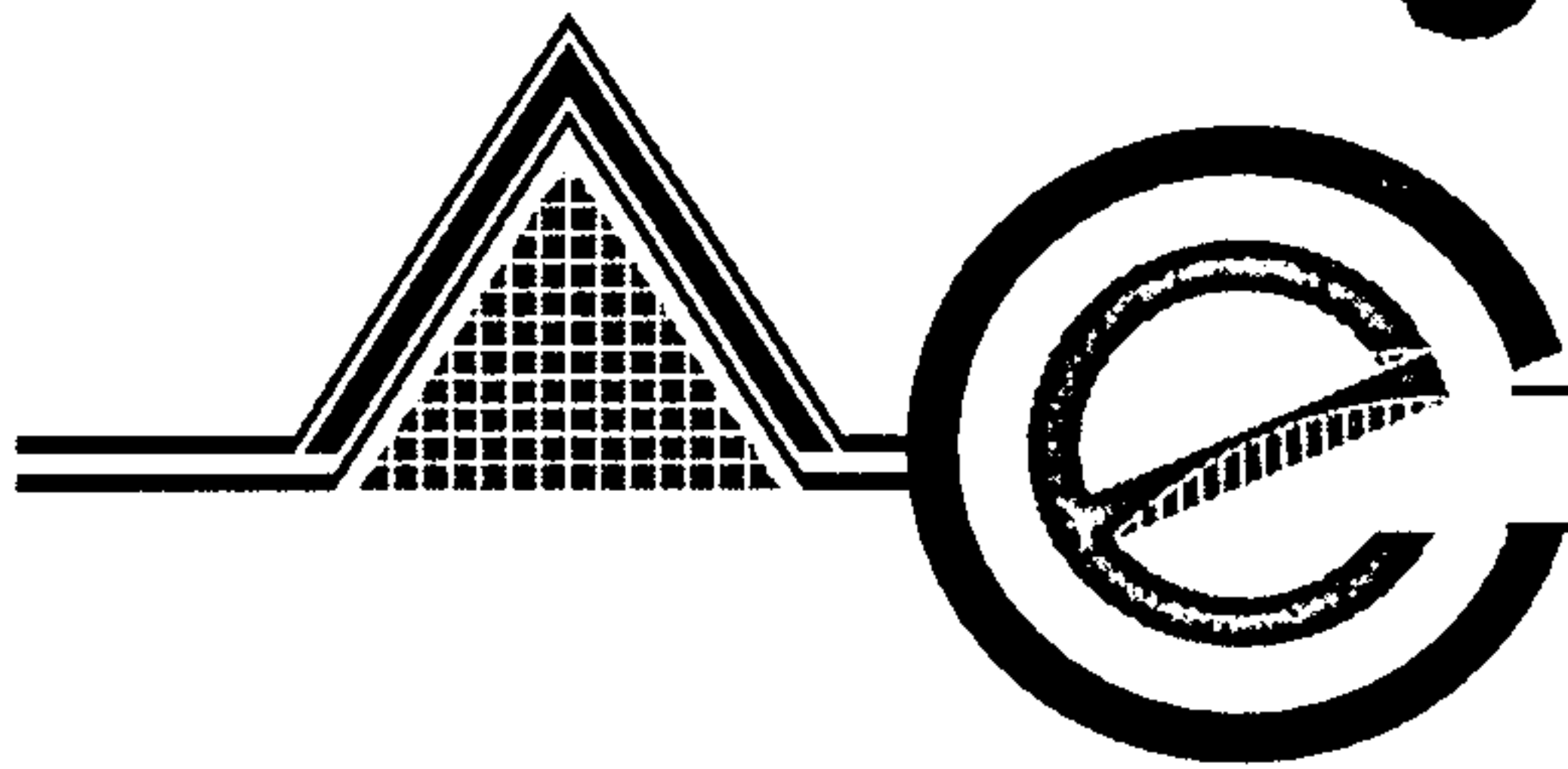
This letter is in request of Temporary Certification of Occupancy for the above mentioned project. I Shahab Biazar, NMPE, of the Advanced Engineering, LLC hereby certify that project has been graded and will drain in substantial compliance with and design intent of the approved plan dated 11/12/2004. All the pavement and storm sewer pipes are in place. The inlet in the future parking area was eliminated (to be built with future part of the shopping center) and a temporary pond is built around the stub of the storm sewer pipe from Coors Boulevard. The contractor has not placed the orifice plat at the outlet of pipe as required on the mater drainage plan (to control the runoff discharge from the site). Once the orifice plat is placed at the outlet of the pipe an as-built grading plan, with modification to the storm sewer pipe, will be submitted for the request of the Final Certification of Occupancy.

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



Sincerely yours,

Shahab Biazar, P.E.



ADVANCED ENGINEERING and CONSULTING, LLC

*Consulting
Design
Development
Management
Inspection
Surveying*

October 6, 2005

Ms. Kristal Metro
Engineer Associate, Planning Dept.
Development and Building Services
600 Second Street NW
Albuquerque, New Mexico 87102

RE: TEMPORARY CERTIFICATION OF OCCUPANCY FOR OCTOPUS CARWASH
(G11/D63A).

Dear Ms. Metro:

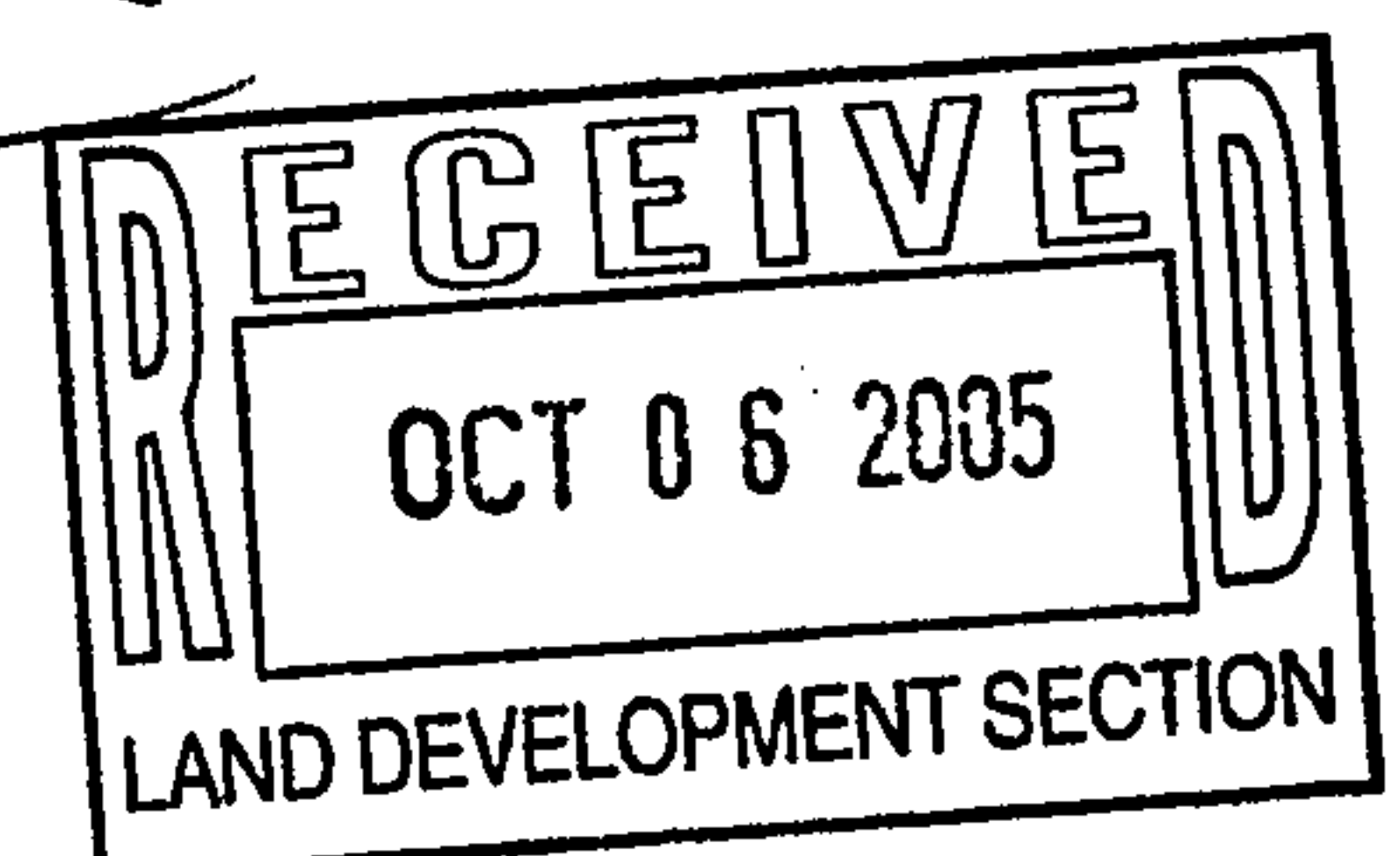
This letter is in request of Temporary Certification of Occupancy for the above mentioned project. I Shahab Biazar, NMPE, of the Advanced Engineering, LLC hereby certify that project has been graded and will drain in substantial compliance with and design intent of the approved plan dated 11/12/2004. All the pavement and storm sewer pipes are in place. The inlet in the future parking area was eliminated (to be built with future part of the shopping center) and a temporary pond is built around the stub of the storm sewer pipe from Coors Boulevard. The contractor has not placed the orifice plat at the outlet of pipe as required on the mater drainage plan (to control the runoff discharge from the site). Once the orifice plat is placed at the outlet of the pipe an as-built grading plan, with modification to the storm sewer pipe, will be submitted for the request of the Final Certification of Occupancy.

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

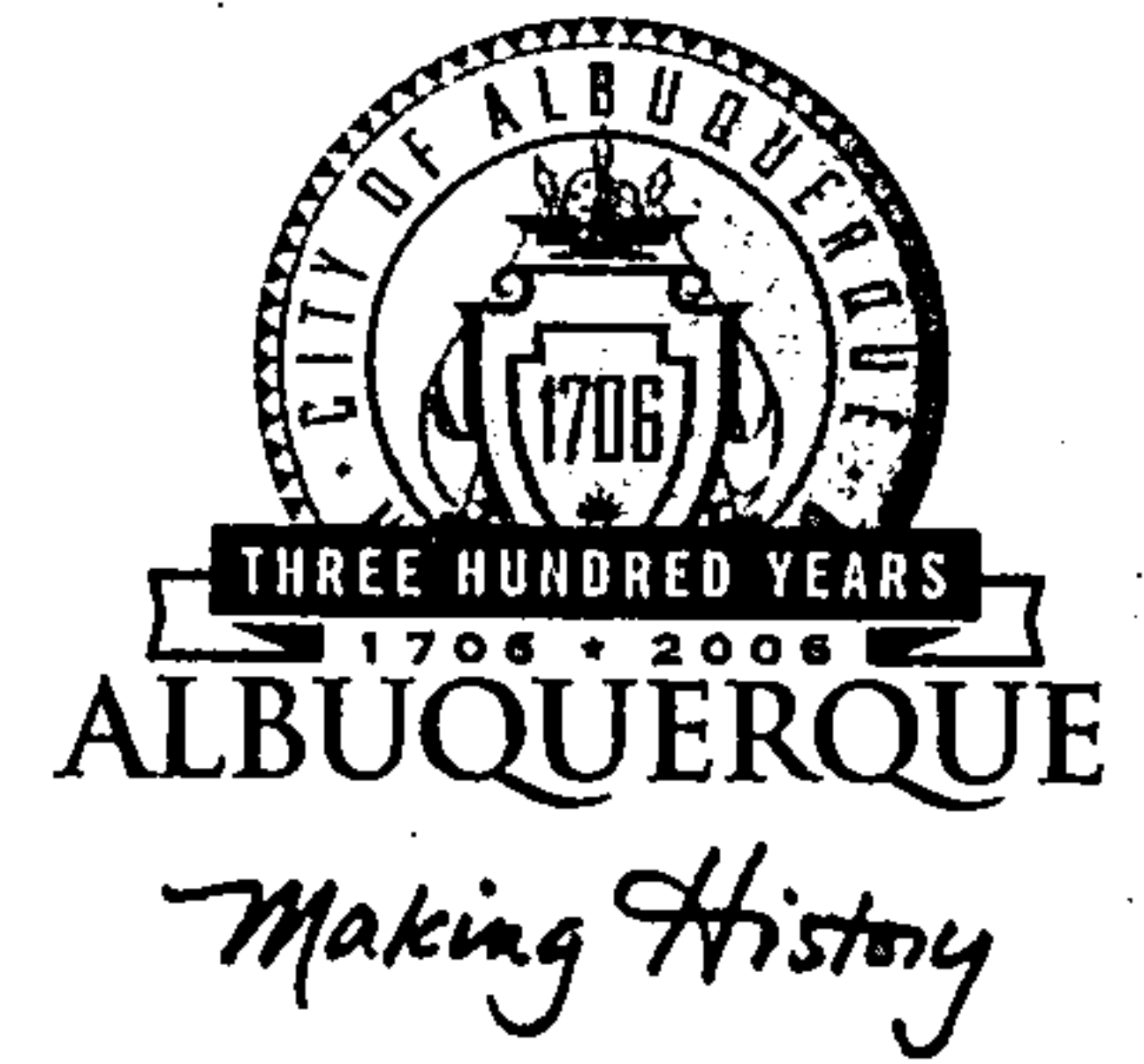


Sincerely yours,

Shahab Biazar, P.E.



CITY OF ALBUQUERQUE



**Planning Department
Transportation Development Services Section**

September 27, 2005

George R. Rainhart , Registered Architect
2325 San Pedro NE, Ste. 2-B
Albuquerque, NM 87110

Re: Certification Submittal for Final Building Certificate of Occupancy for
Octopus Carwash, [G-11 / D63A]
2929 Coors NW
Architect's Stamp Dated 09/26/05

Dear Mr. Rainhart:

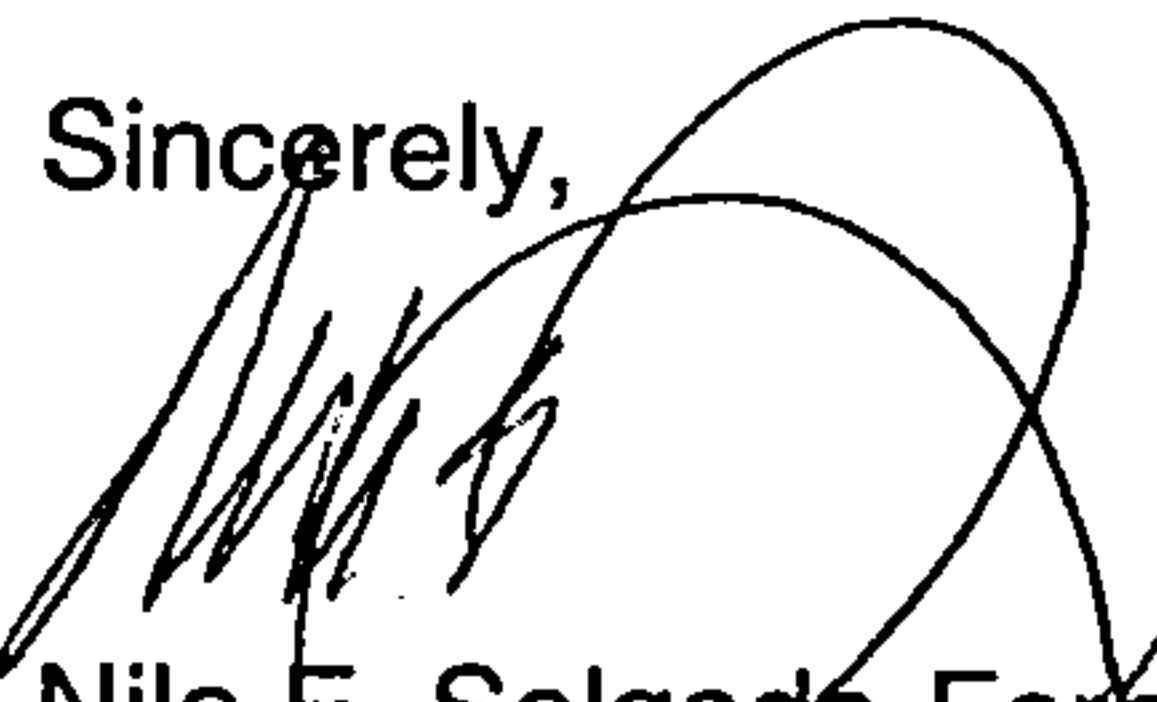
P.O. Box 1293

The TCL / Letter of Certification submitted on September 26, 2005 is sufficient for acceptance by this office for final Certificate of Occupancy (C.O.). Notification has been made to the Building and Safety Section.

Albuquerque

Sincerely,

New Mexico 87103


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

www.cabq.gov

c: Engineer
Hydrology file
CO Clerk

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(Rev. 06/22/2005)

PROJECT TITLE: Octopus Car Wash ZONE MAP/DRG. FILE # G-11-ED63A
DRB#: 04 DRB-01797 EPC#: 1002905 WORK ORDER#: _____

LEGAL DESCRIPTION: Town of Abasco Grant Section 2, Township 10 North, Range 2 East
CITY ADDRESS: 2929 Coors Ave. NE

ENGINEERING FIRM: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

OWNER: Octopus Car Wash
ADDRESS: 5215 San Mateo NE
CITY, STATE: Albuquerque, N.M.

CONTACT: Charles Lister
PHONE: 883-9774
ZIP CODE: 87109

ARCHITECT: George Reinhardt Architects & Assoc.
ADDRESS: 2325 San Pedro NE
CITY, STATE: Albuquerque, N.M.

CONTACT: Mike Schantz
PHONE: 884-9110 ex 108
ZIP CODE: 87110

SURVEYOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

CONTRACTOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

TYPE OF SUBMITTAL:

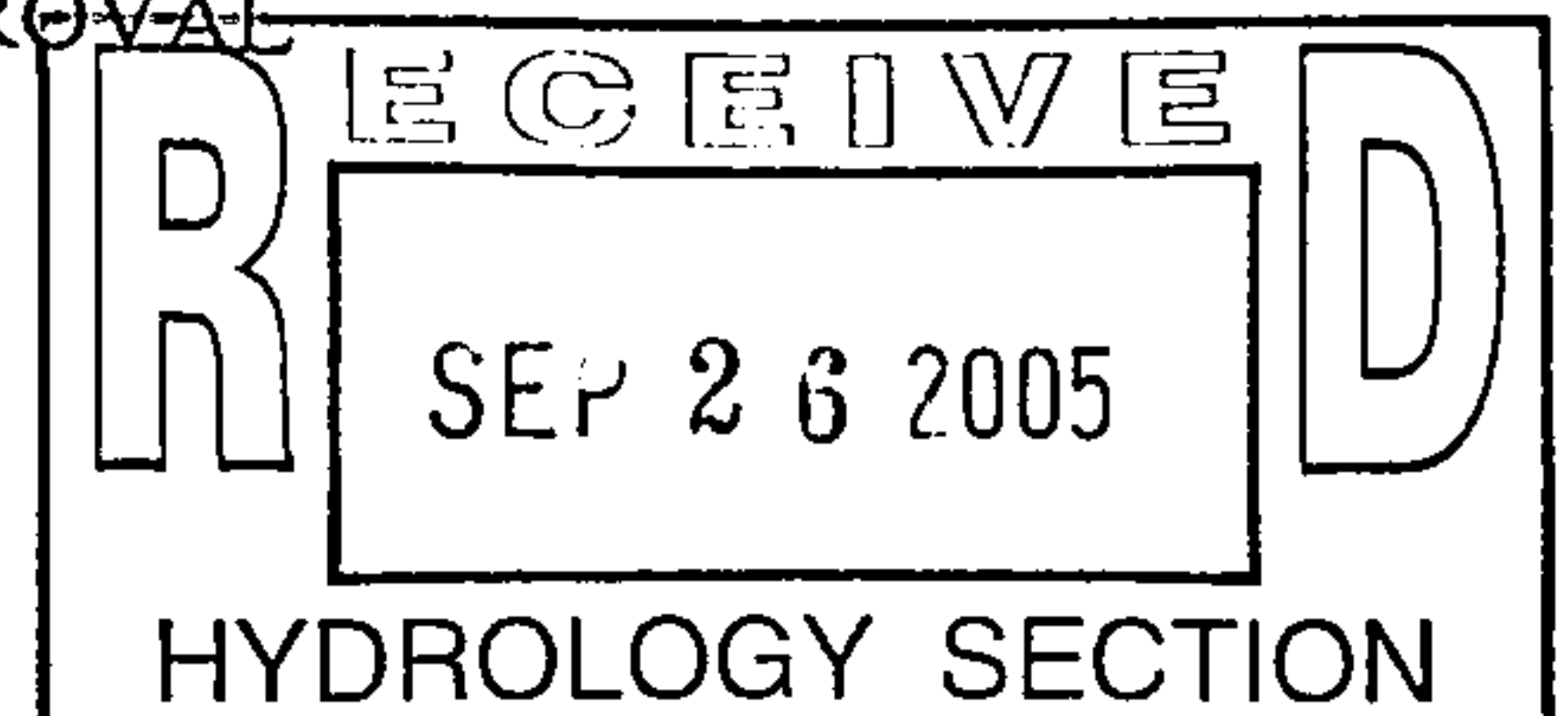
- ☐ DRAINAGE REPORT
☐ DRAINAGE PLAN 1st SUBMITTAL
☐ DRAINAGE PLAN RESUBMITTAL
☐ CONCEPTUAL G & D PLAN
☐ GRADING PLAN
☐ EROSION CONTROL PLAN
☐ ENGINEER'S CERT (HYDROLOGY)
☐ CLOMR/LOMR
☐ TRAFFIC CIRCULATION LAYOUT
☐ ENGINEER'S CERT (TCL)
☐ ENGINEER'S CERT (DRB SITE PLAN)
☐ OTHER

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



SUBMITTED BY: Mike Schantz DATE: 9-21-05

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.

TRAFFIC CERTIFICATION

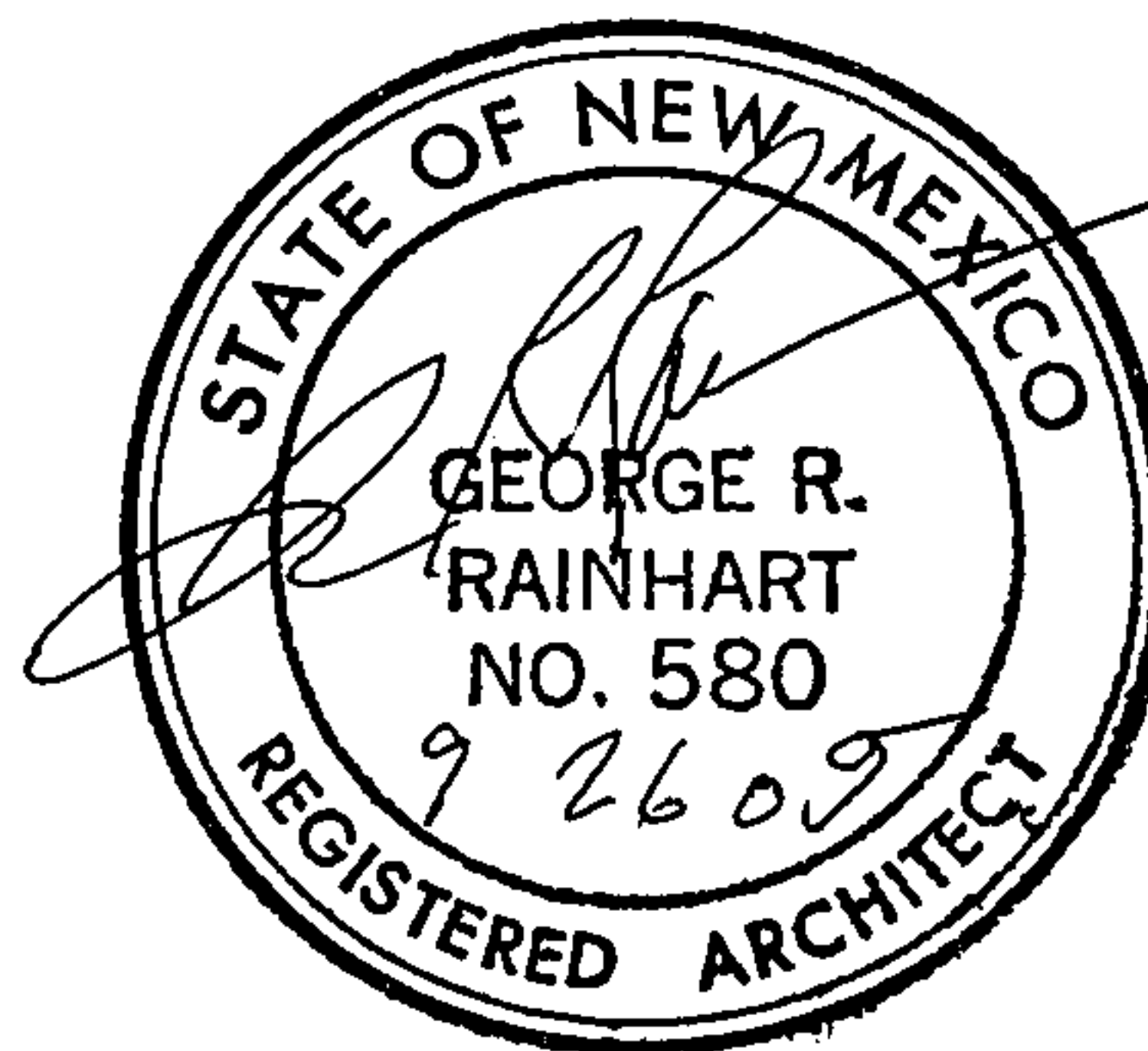
I, George Rainhart, NMPE OR (NMRA) #580, OF THE FIRM Rainhart Architects & Assoc., HEREBY CERTIFY THAT THIS PROJECT HAS IS IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED 5-21-04. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY Mike J. Henry OF THE FIRM Rainhart Architects I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON 9-18-05 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.

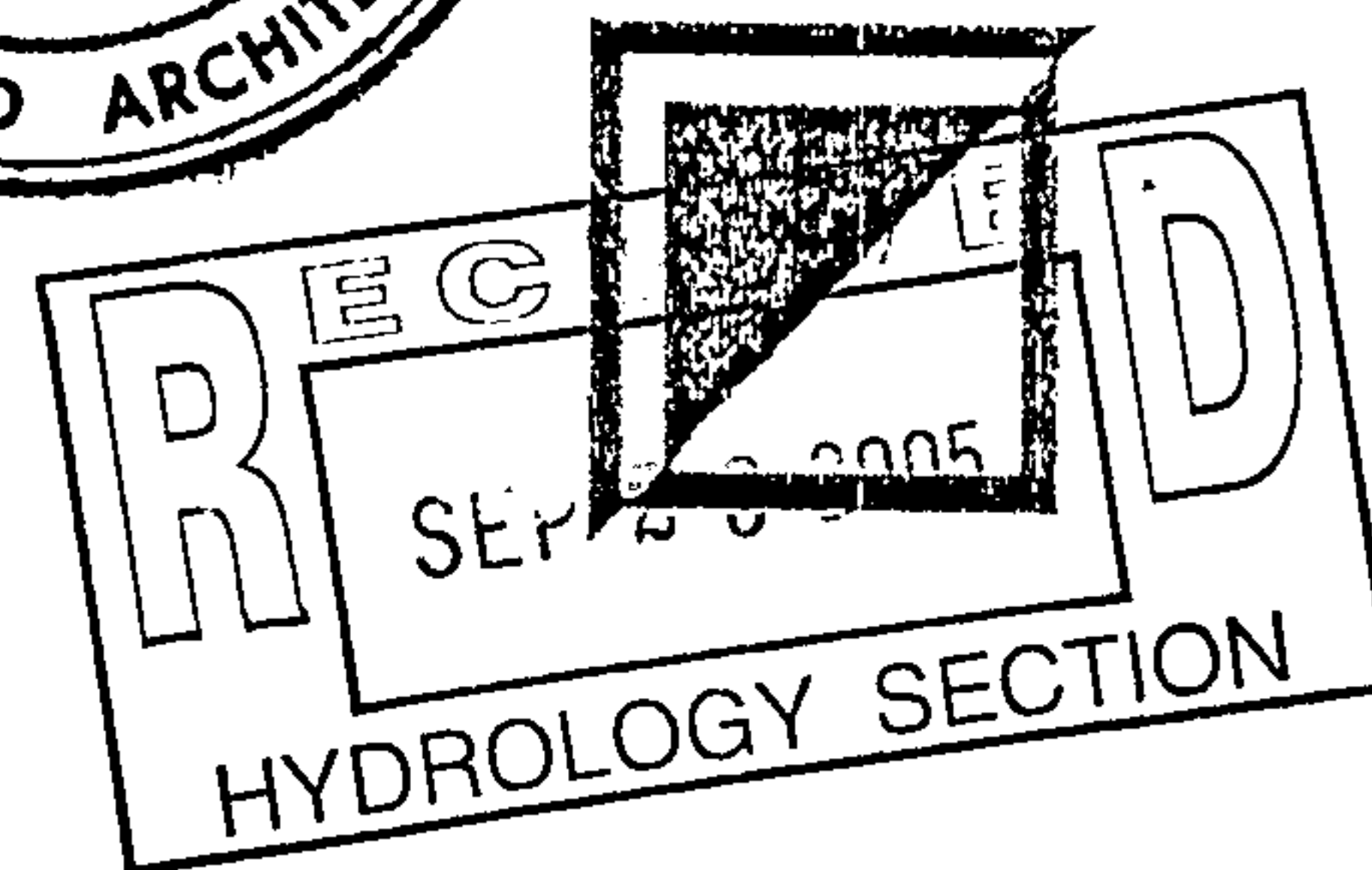
Signature of Engineer or Architect

ENGINEER'S OR ARCHITECT'S STAMP

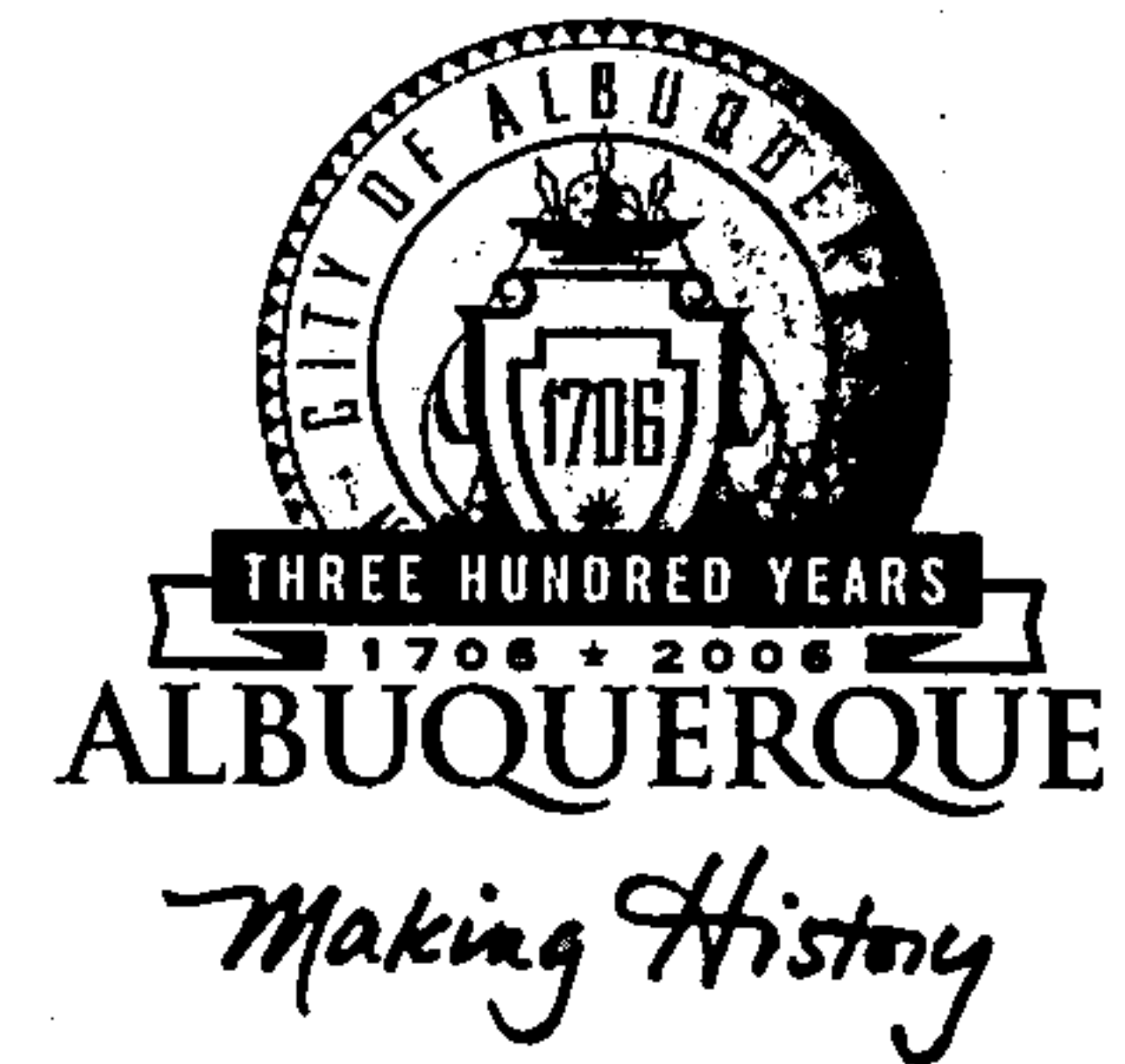
Date



GEORGE RAINHART, ARCHITECT AND ASSOCIATES P.C.
2325 SAN PEDRO, NE, SUITE 2-B ALBUQUERQUE, NEW MEXICO 87110
PHONE: (505) 884-9110 FAX: (505) 837-9877



CITY OF ALBUQUERQUE



October 20, 2005

Mr. Shahab Biazar, P.E.
**ADVANCED ENGINEERING
AND CONSULTING, LLC**
4416 Anaheim Avenue NE
Albuquerque, NM 87113

Re: OCTOPUS CAR WASH AT REDLANDS
3101 Coors Blvd. NW
Approval of Temporary Certificate of Occupancy (C.O.)
Approved Engineer's Stamp dated 11/12/2004 (G-11/D63A)
Certification dated 10/19/2005

Dear Shahab:

P.O. Box 1293

Based upon the information provided in your submittal received 10/19/2005, 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: Phyllis Villanueva
File

DRAINAGE INFORMATION SHEET

(REV. 1/28/2003rd)

PROJECT TITLE: Redlands Shopping Center / Octopus Carwash ZONE ATLAS/DRG. FILE #: G11/D63A
DRB #: _____ EPC #: _____ WORK ORDER #: _____

LEGAL DESCRIPTION: Tract A-28-B1 and A-28-B2, NE Unit, Town of Atrisco
CITY ADDRESS: _____

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

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

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

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

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

CHECK TYPE OF SUBMITTAL:

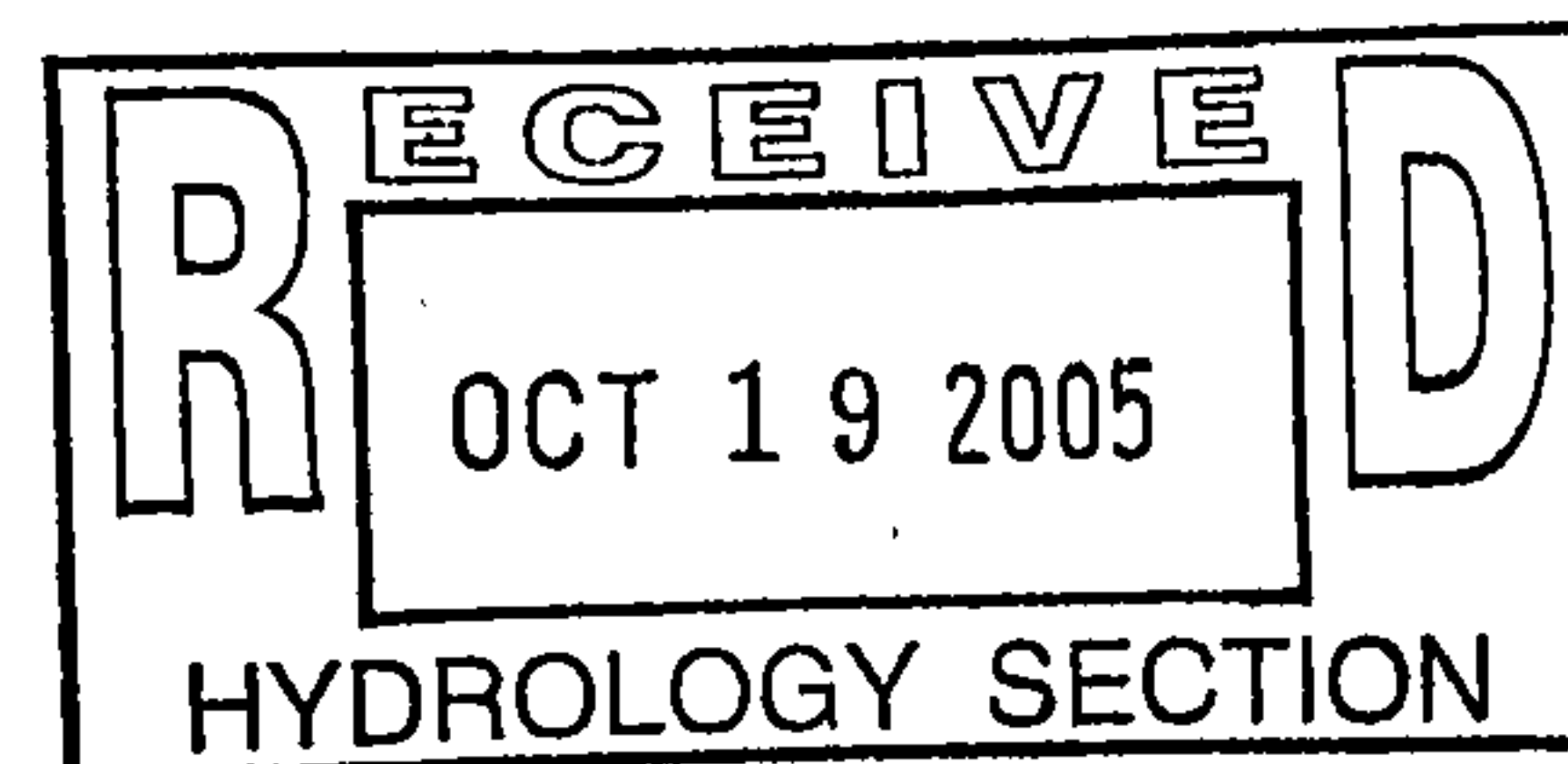
☐ DRAINAGE REPORT
☐ DRAINAGE PLAN 1ST SUBMITTAL, REQUIRES TCL OR EQUAL
☐ CONCEPTUAL GRADING & DRAINAGE PLAN
☐ GRADING PLAN
☐ EROSION CONTROL PLAN
☒ ENGINEER'S CERTIFICATION (HYDROLOGY)
☐ CLOMR / LOMR
☐ TRAFFIC CIRCULATION LAYOUT (TCL)
☐ ENGINEER'S CERTIFICATION (TCL)
☐ ENGINEER'S CERTIFICATION (DRB APPR. SITE PLAN)
☒ AS-BUILT GRADING PLAN

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
☒ FINAL CERTIFICATION OF OCCUPANCY

WAS A PRE-DESIGN CONFERENCE ATTENDED:

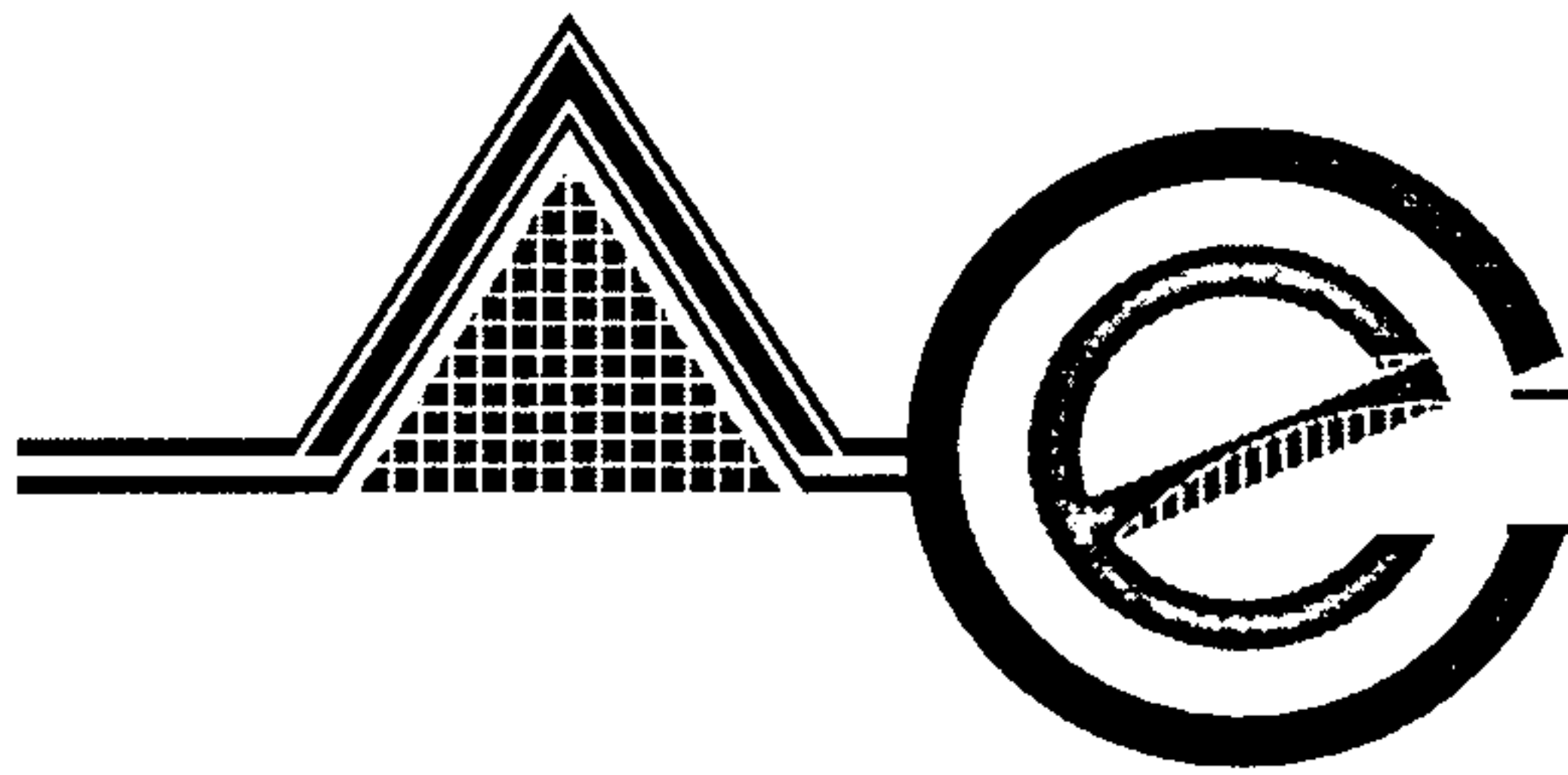
☐ YES
☒ NO
☐ COPY PROVIDED



DATE SUBMITTED: 10 / 19 / 2005 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)
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



ADVANCED ENGINEERING and CONSULTING, LLC

*Consulting
Design
Development
Management
Inspection
Surveying*

October 19, 2005

Ms. Kristal Metro
Engineer Associate, Planning Dept.
Development and Building Services
600 Second Street NW
Albuquerque, New Mexico 87102

RE: FINAL CERTIFICATION OF OCCUPANCY FOR OCTOPUS CARWASH
(G11/D63A).

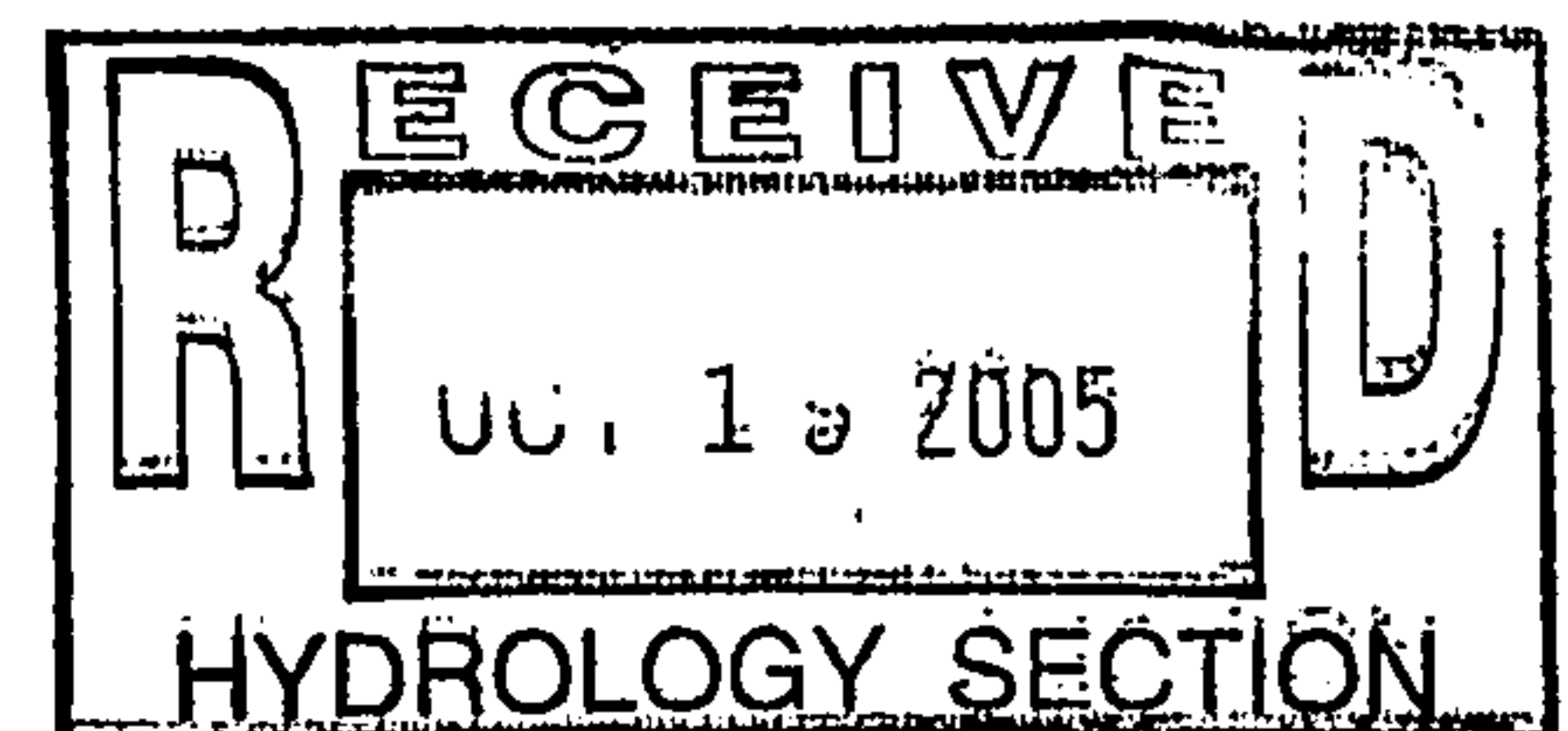
Dear Ms. Metro:

This letter is in request of Final Certification of Occupancy for the above mentioned project. I Shahab Biazar, NMPE, of the Advanced Engineering, LLC hereby certify that project has been graded and will drain in substantial compliance with and design intent of the approved plan dated 11/12/2004. All the pavement and storm sewer pipes are in place. The inlet in the future parking area was eliminated (to be built with future part of the shopping center) and a temporary pond is built around the stub of the storm sewer pipe from Coors Boulevard. Since the inlet was not built at this time the 3.5" orifice was placed at the outlet of the pipe to control the discharge as it is intended on the master grading and drainage plan. See enclosed as-built grading plan.

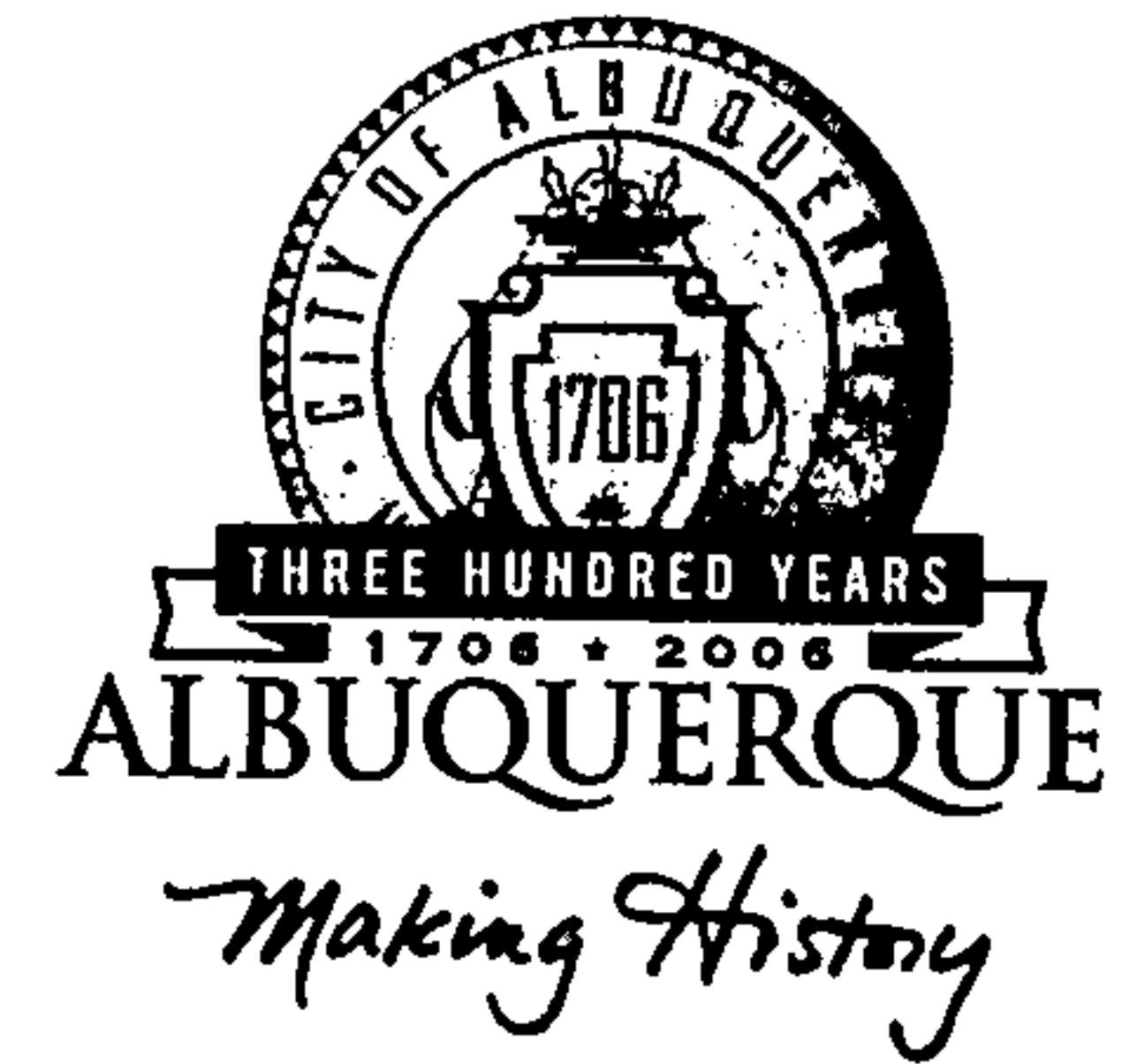
Please contact me if there are any questions or concerns regarding this submittal.

Sincerely yours,

Shahab Biazar, P.E.



CITY OF ALBUQUERQUE



October 15, 2004

Shahab Biazar PE
Advanced Engineering and Consulting
4416 Anaheim Ave. NE
Albuquerque, NM 87113

**Re: Octopus Car Wash at Redlands Grading and Drainage Plan
Engineer's Stamp dated 9-1-04 (G11/D63A)**

Dear Mr. Biazar,

Based upon the information provided in your submittal dated 9-1-04, 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.

This project requires a National Pollutant Discharge Elimination System (NPDES) permit. Refer to the attachment that is provided with this letter for details. If you have any questions please feel free to call the Municipal Development Department, Hydrology section at 768-3654 (Charles Caruso) or 768-3645 (Bryan Wolfe).

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
Principal Engineer, Planning Dept.
Development and Building Services

C: Chuck Caruso, CoA
file

P.O. Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

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

G-11/D63A

PROJECT TITLE: Redlands Shopping Center / Octopus Carwash ZONE ATLAS/DRG. FILE #: ~~G17024~~
DRB #: _____ EPC #: _____ WORK ORDER #: _____

LEGAL DESCRIPTION: Tract A-28-B1 and A-28-B2, NE Unit, Town of Atrisco
CITY ADDRESS: _____

ENGINEERING FIRM: Advanced Engineering and Consulting, LLC
ADDRESS: 4416 Anaheim Ave., NE
CITY, STATE: Albuquerque, New Mexico

CONTACT: Shahab Biazar
PHONE: (505) 899-5570
ZIP CODE: 87113

OWNER: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

ARCHITECT: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

SURVEYOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

CONTRACTOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

CHECK TYPE OF SUBMITTAL:

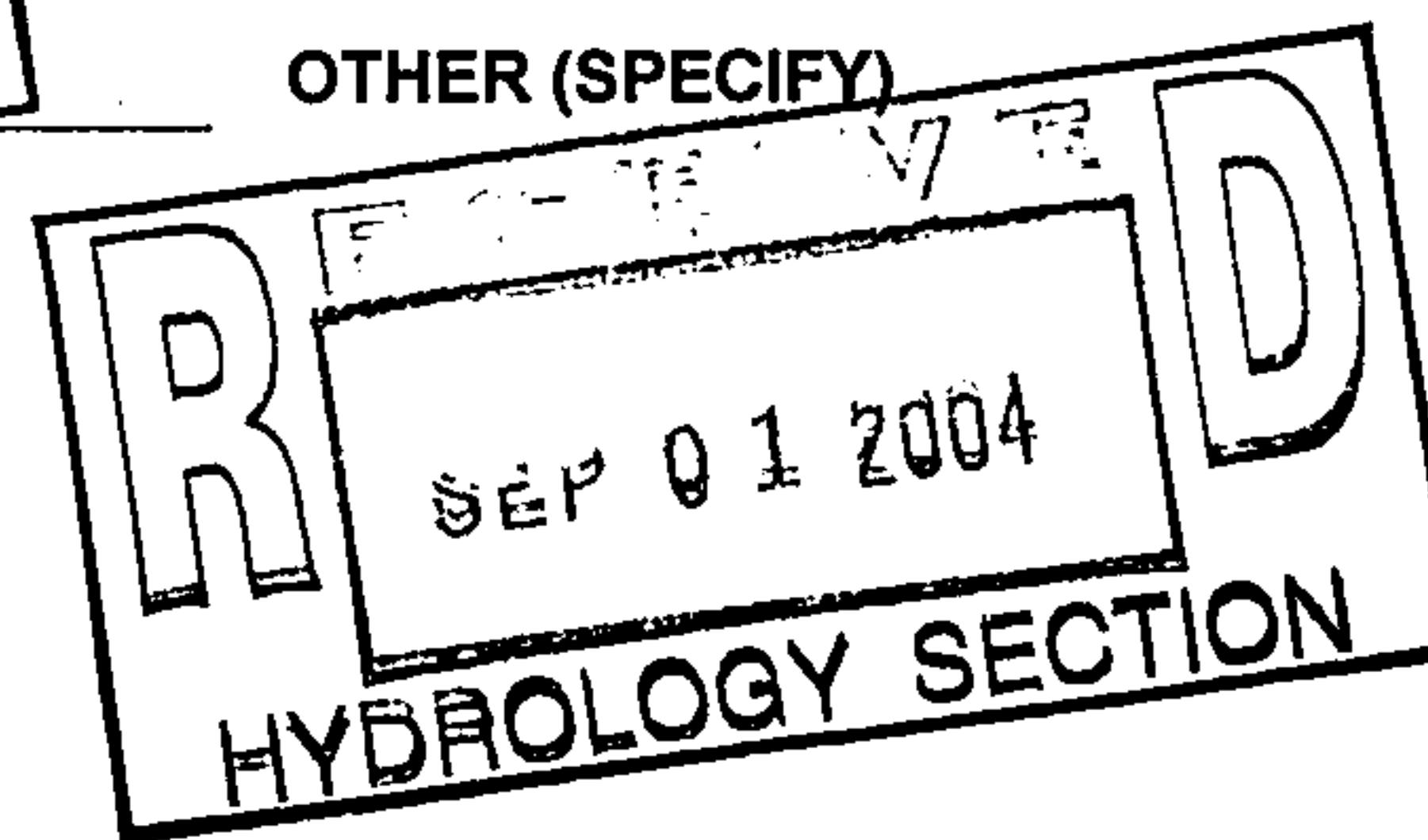
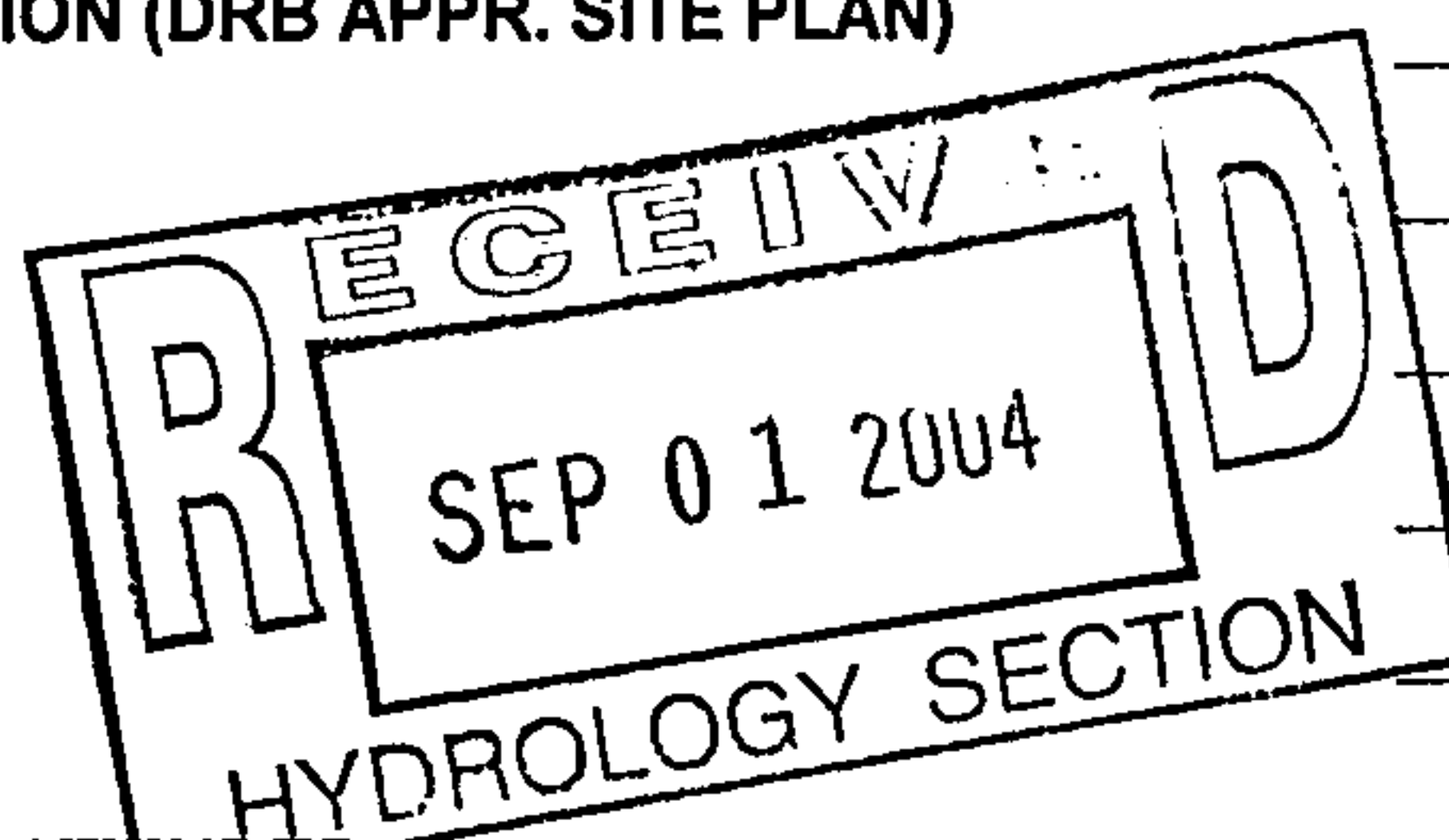
_____ DRAINAGE REPORT
_____ DRAINAGE PLAN 1ST SUBMITTAL, REQUIRES TCL OR EQUAL
_____ CONCEPTUAL GRADING & DRAINAGE PLAN
☒ GRADING PLAN
_____ EROSION CONTROL PLAN
_____ ENGINEER'S CERTIFICATION (HYDROLOGY)
_____ CLOMR / LOMR
_____ TRAFFIC CIRCULATION LAYOUT (TCL)
_____ ENGINEER'S CERTIFICATION (TCL)
_____ ENGINEER'S 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:

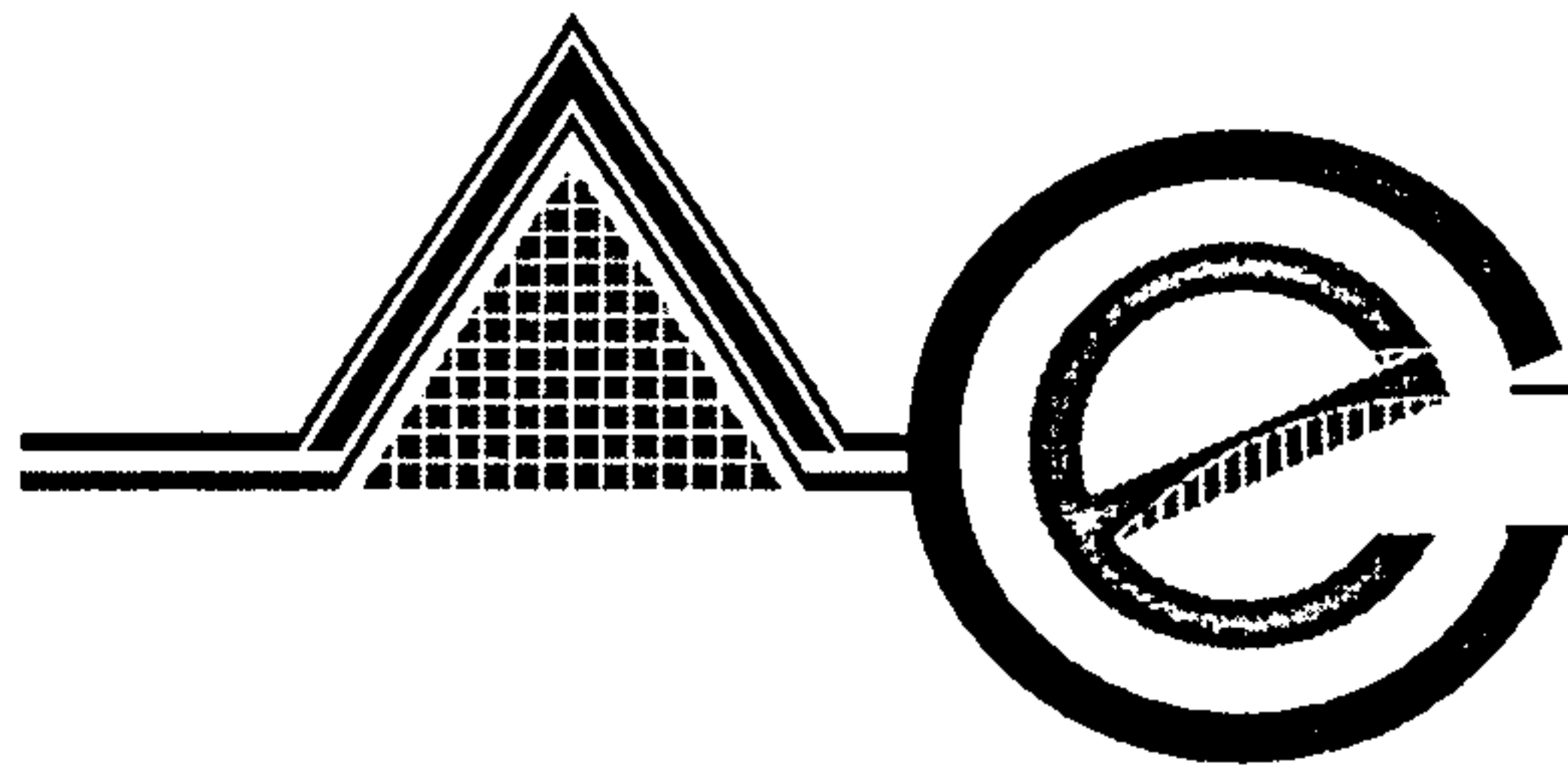
_____ YES
☒ NO
_____ COPY PROVIDED



DATE SUBMITTED: 09 / 01 / 2004 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)
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



ADVANCED ENGINEERING and CONSULTING, LLC

*Consulting
Design
Development
Management
Inspection
Surveying*

September 1, 2004

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 OCTOPUS CARWASH AND THE OVERALL
GRADING PLAN CHANGES FOR REDLANDS SHOPPING CENTER (GTMD63)

Dear Mr. Bingham:

This letter is in regards to the changes on the overall grading plan and Octopus Carwash grading plan. The overall layout of the site has been changed from what was originally approved with engineering stamp date 1/05/04 (see enclosed copy of the approved grading plan with this submittal).

The grades have been changed according to the changes on the layout for the overall site. The parking lot ponding has been recalculated and re-analyzed. The site treatment, on the previous calculations, was B=15% and D=85%. In order to be more conservative we have used a treatment of B=10% and D=90%. The parking lot ponding surface area has also slightly increased. Based on the new ponding calculations and AHYMO calculations the discharge is at 0.64 cfs versus 0.71 cfs (on the previous submittal).

A site specific grading plan for Octopus Carwash has been included with this submittal. All the storm sewer piping and ponding limits will be built with the construction of the Carwash. Grave gags will be placed around the inlet for desilting purposes until the parking lot is fully paved. Silt fences will be placed between the developed/paved areas and undeveloped areas. See the grading plan for limits of construction/paved areas. The storm sewer pipe construction plans will be submitted to DRC.

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

Sincerely yours,

Shahab Biazar, P.E.

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

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

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

Ab = 13.59
At = 44,977.03
Dt = 2.00
C = 22481.72

ACTUAL ELEV.	DEPTH (FT)	VOLUME (AC-FT)	Q (CFS)
5096.00	0.00	0.0000	0.0000
5097.30	1.30	0.0004	0.3456
5098.60	2.60	0.0008	0.5040
5098.80	2.80	0.0112	0.5241
5099.00	3.00	0.0422	0.5435
5099.20	3.20	0.0939	0.5622
5099.40	3.40	0.1662	0.5803
5099.60	3.60	0.2592	0.5979
5099.80	3.80	0.3728	0.6150
5100.00	4.00	0.5070	0.6316
5100.20	4.20	0.6619	0.6478
5100.40	4.40	0.8375	0.6635
5100.60	4.60	1.0337	0.6790

Orifice Equation

$$Q = \text{CA} \text{ SQRT}(2gH)$$

C = 0.6
Diameter (in) = 3.5
Area (ft^2) = 0.0668
g = 32.2
H (Ft) = Depth of water above center of orifice
Q (CFS) = Flow

AHYMO INPUT FILE

(PARKING LOT PONDING CONDITIONS)

*

* ZONE 1

*

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

*

START

TIME=0.0

RAINFALL

TYPE=1 RAIN QUARTER=0.0 IN

RAIN ONE=1.88 IN RAIN SIX=2.23 IN

RAIN DAY=2.66 IN DT=0.03333 HR

* ON-SITE BASIN

COMPUTE NM HYD

ID=1 HYD NO=101.0 AREA=0.007500 SQ MI

PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00

TP=0.1333 HR MASS RAINFALL=-1

*

PARKING LOT PONDING CONDITION

*

*

ROUTE RESERVOIR

ID=10 HYD NO=501.1 INFLOW ID=1 CODE=24

OUTFLOW(CFS)

STORAGE(AC-FT)

ELEVATION(FT)

0.0000

0.0000

5096.00

0.3456

0.0004

6097.30

0.4050

0.0008

5098.60

0.5241

0.0112

5098.80

0.5435

0.0422

5099.00

0.5622

0.0939

5099.20

0.5803

0.1662

5099.40

0.5979

0.2592

5099.60

0.6150

0.3728

5099.80

0.6316

0.5070

5100.00

0.6478

0.6619

5100.20

0.6635

0.8375

5100.40

0.6790

1.0337

5100.60

*

*

FINISH

SUMMARY OUTPUT FILE
(PARKING LOT PONDING CONDITIONS)

AHYMO PROGRAM SUMMARY TABLE (AHYMO_97) -
INPUT FILE = 200426pd

- VERSION: 1997.02d

RUN DATE (MON/DAY/YR) =09/01/2004
USER NO.= AHYMO-I-9702c01000R31-AH

		FROM	TO		PEAK	RUNOFF		TIME TO	CFS	PAGE =	1
HYDROGRAPH		ID	ID	AREA	DISCHARGE	VOLUME	RUNOFF	PEAK	PER		
COMMAND	IDENTIFICATION	NO.	NO.	(SQ MI)	(CFS)	(AC-FT)	(INCHES)	(HOURS)	ACRE	NOTATION	
START										TIME=	.00
RAINFALL	TYPE= 1									RAIN6=	2.230
COMPUTE NM HYD	101.00	-	1	.00750	20.00	.745	1.86311	1.500	4.166	PER IMP=	90.00
ROUTE RESERVOIR	501.10	1	10	.00750	.64	.745	1.86310	2.500	.134	AC-FT=	.627
FINISH											

AHYMO OUTPUT FILE

(PARKING LOT PONDING CONDITIONS)

AHYMO PROGRAM (AHYMO_97) - - Version: 1997.02d
RUN DATE (MON/DAY/YR) = 09/01/2004
START TIME (HR:MIN:SEC) = 09:47:33 USER NO.= AHYMO-I-9702c01000R31-AH
INPUT FILE = 200426pd

*
* ZONE 1
*

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

*

START TIME=0.0
RAINFALL TYPE=1 RAIN QUARTER=0.0 IN
RAIN ONE=1.88 IN RAIN SIX=2.23 IN
RAIN DAY=2.66 IN DT=0.03333 HR

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

DT =	.033330 HOURS	END TIME =	5.999400 HOURS
.0000	.0018	.0037	.0056
.0136	.0157	.0179	.0201
.0296	.0322	.0348	.0375
.0494	.0526	.0560	.0595
.0752	.0797	.0844	.0896
.1423	.1862	.2493	.3353
.9915	1.1949	1.2799	1.3516
1.5765	1.6229	1.6663	1.7072
1.8494	1.8804	1.9098	1.9377
1.9821	1.9875	1.9926	1.9975
2.0154	2.0195	2.0235	2.0273
2.0418	2.0451	2.0484	2.0517
2.0639	2.0668	2.0696	2.0724
2.0831	2.0857	2.0882	2.0907
2.1002	2.1025	2.1048	2.1071
2.1157	2.1178	2.1199	2.1219
2.1299	2.1318	2.1338	2.1356
2.1430	2.1448	2.1466	2.1483
2.1552	2.1569	2.1586	2.1602
2.1667	2.1683	2.1698	2.1714
2.1775	2.1790	2.1805	2.1819
2.1877	2.1891	2.1905	2.1919
2.1974	2.1988	2.2001	2.2015
2.2067	2.2080	2.2093	2.2106
2.2156	2.2168	2.2181	2.2193
2.2241	2.2253	2.2265	2.2276

* ON-SITE BASIN
COMPUTE NM HYD ID=1 HYD NO=101.0 AREA=0.007500 SQ MI
PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00
TP=0.1333 HR MASS RAINFALL=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 26.649 CFS UNIT VOLUME = .9989 B = 526.28 P60 = 1.8800
AREA = .006750 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

K = .130816HR TP = .133300HR K/TP RATIO = .981365 SHAPE CONSTANT, N = 3.598385
UNIT PEAK = 1.8423 CFS UNIT VOLUME = .9926 B = 327.44 P60 = 1.8800
AREA = .000750 SQ MI IA = .50000 INCHES INF = 1.25000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

* PARKING LOT PONDING CONDITION *

ROUTE RESERVOIR ID=10 HYD NO=501.1 INFLOW ID=1 CODE=24
OUTFLOW (CFS) STORAGE (AC-FT) ELEVATION (FT)
0.0000 0.0000 5096.00
0.3456 0.0004 6097.30
0.4050 0.0008 5098.60
0.5241 0.0112 5098.80
0.5435 0.0422 5099.00
0.5622 0.0939 5099.20
0.5803 0.1662 5099.40
0.5979 0.2592 5099.60
0.6150 0.3728 5099.80
0.6316 0.5070 5100.00
0.6478 0.6619 5100.20
0.6635 0.8375 5100.40
0.6790 1.0337 5100.60

* * * * *

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	5096.00	.000	.00
.80	.00	5096.00	.000	.00
1.60	13.79	5099.74	.339	.61
2.40	.85	5100.15	.626	.64
3.20	.18	5100.13	.610	.64
4.00	.12	5100.09	.577	.64
4.80	.12	5100.05	.543	.64
5.60	.13	5100.00	.509	.63
6.40	.01	5099.95	.474	.63
7.20	.00	5099.89	.433	.62
8.00	.00	5099.83	.392	.62
8.80	.00	5099.76	.351	.61
9.60	.00	5099.69	.311	.61
10.40	.00	5099.62	.271	.60
11.20	.00	5099.54	.232	.59
12.00	.00	5099.46	.193	.59
12.80	.00	5099.37	.154	.58
13.60	.00	5099.26	.117	.57
14.40	.00	5099.14	.079	.56
15.20	.00	5099.00	.043	.54
16.00	.00	5098.74	.008	.49

PEAK DISCHARGE = .644 CFS - PEAK OCCURS AT HOUR 2.50
MAXIMUM WATER SURFACE ELEVATION = 5100.155
MAXIMUM STORAGE = .6273 AC-FT INCREMENTAL TIME= .033330HRS

*

*

FINISH

NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) = 09:47:33