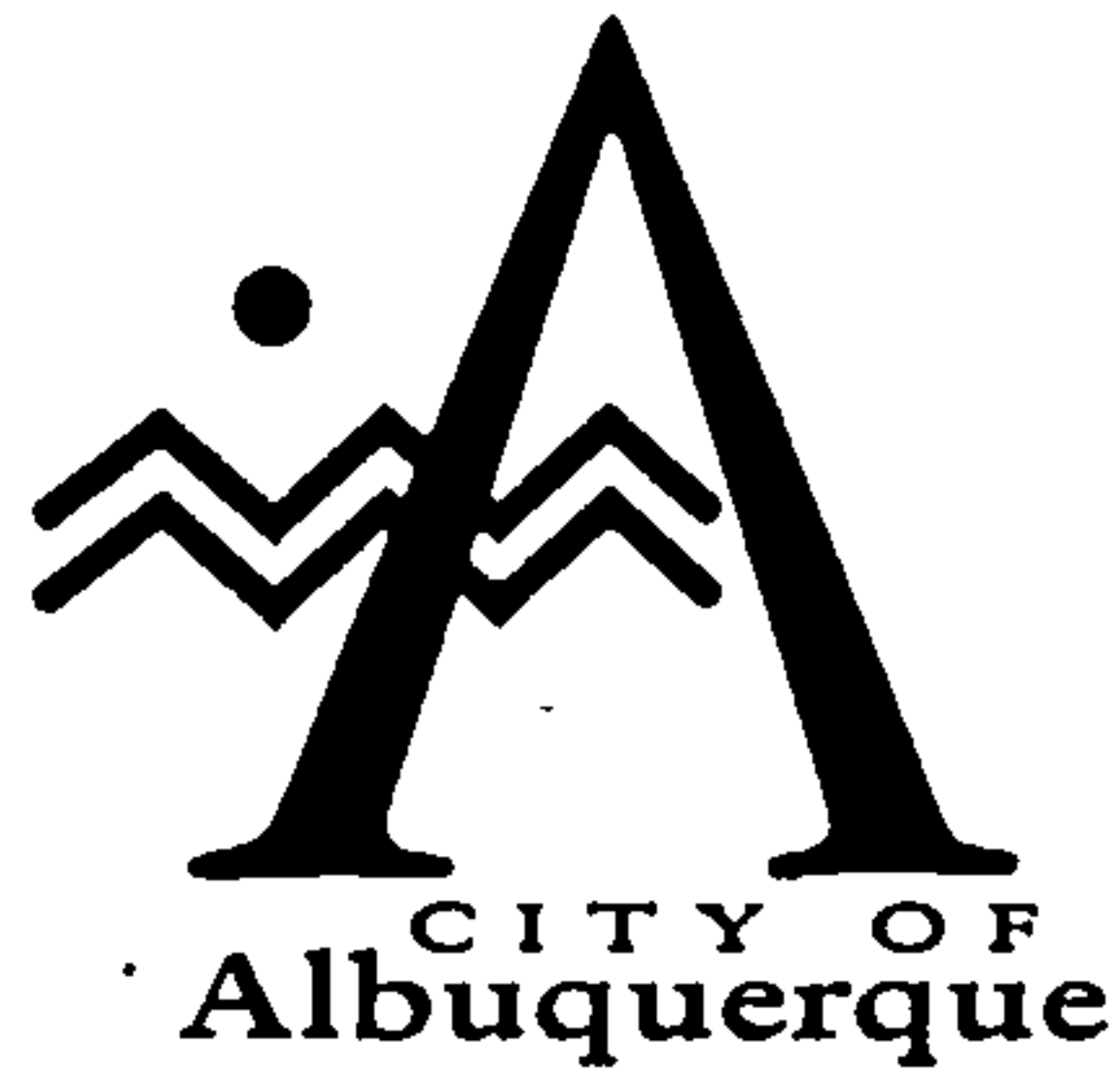




March 26, 1998

Ronald Bohannon, P.E.
Tierra West, LLC
4421 McLeod NE
Suite D
Albuquerque, NM 87109

**RE: ROMANO'S MACARONI GRILL (J19-D55). GRADING AND DRAINAGE PLAN
FOR BUILDING PERMIT APPROVAL. ENGINEER'S STAMP DATED MARCH 9,
1998.**

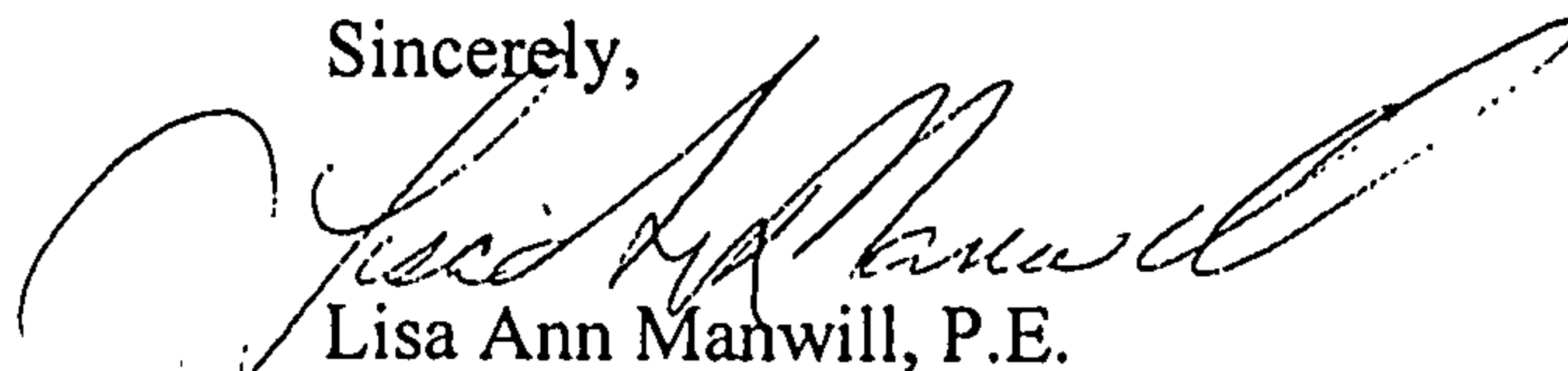
Dear Mr. Bohannon:

Based on the information provided on your March 9, 1998 submittal, the above referenced project is approved for Building Permit.

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

If I can be of further assistance, please feel free to contact me at 924-3984.

Sincerely,



Lisa Ann Manwill, P.E.
Hydrology

c: Andrew Garcia _____
File

Good for You, Albuquerque!





March 18, 1998

Ronald Bohannon, P.E.
Tierra West, LLC
4421 McLeod NE
Suite D
Albuquerque, NM 87109

**RE: ROMANO'S MACARONI GRILL (J19-D55). GRADING AND DRAINAGE
PLAN FOR BUILDING PERMIT APPROVAL. ENGINEER'S STAMP
DATED MARCH 9, 1998.**

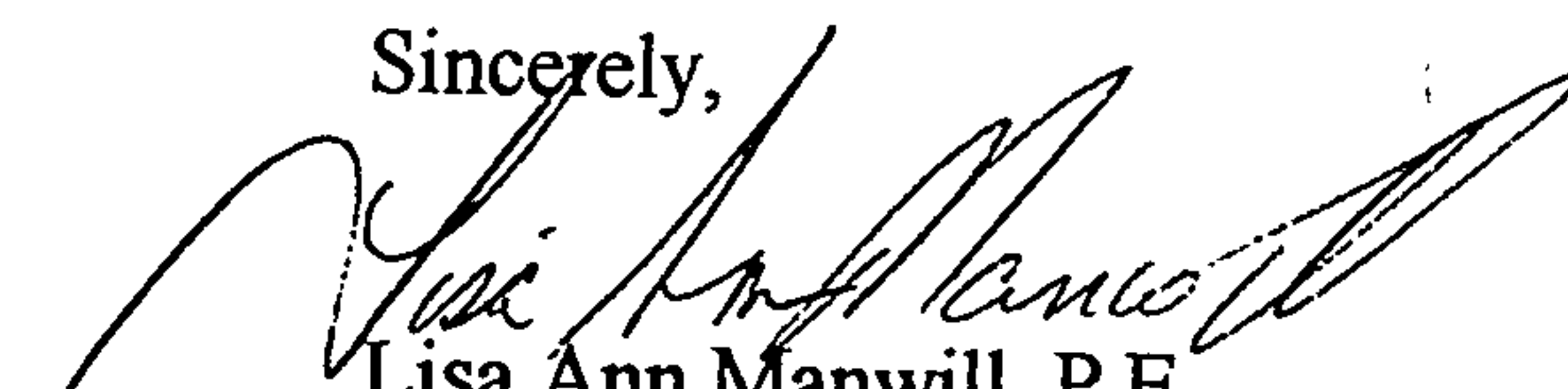
Dear Mr. Bohannon:

Based on the information provided on your March 9, 1998 submittal, the above referenced project is approved for Paving Permit. In the future, please fill out your own Drainage information sheet that provides the most current and correct information. Do not use Mark Goodwin's old Drainage Information sheet for this project.

I did not grant Building Permit, as it does not appear that you are building anything.

If I can be of further assistance, please contact me at 924-3984.

Sincerely,



Lisa Ann Manwill, P.E.
Hydrology

c: Andrew Garcia
File

Good for You, Albuquerque!





**Tierra West Development
Management Services**

October 18, 1994

Mr. Bernie J. Montoya
City of Albuquerque
Hydrology Department
Post Office Box 1293
Albuquerque, NM 87103

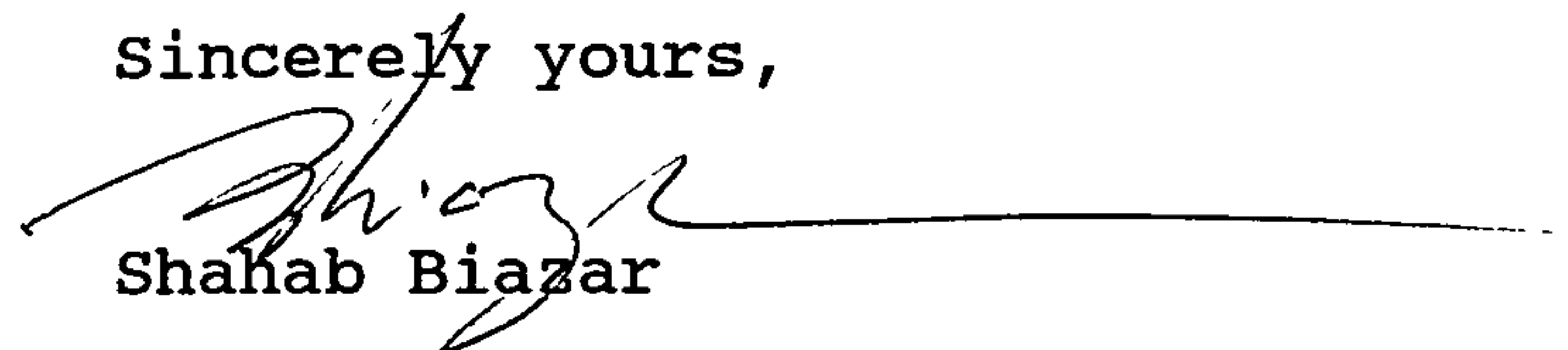
RE: ADDITION TO ROMANO'S MACARONI GRILL (J-19/D55), APPROVED
GRADING AND DRAINAGE PLAN ON JANUARY 15, 1992

Dear Mr. Montoya:

We are sending this letter regarding the new addition to Romano's Macaroni Grill at the southeast corner of Louisiana Boulevard and Private Loop Road. The new building addition consists of approximately 732 square foot, which will be built over existing parking on northeast side of the building. There are no additional flows anticipated, and all the new drainage runoff will drain the same as the original Grading and Drainage Plan. See attached Grading and Drainage Plan for the new addition of the building.

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

Sincerely yours,



Shahab Biazar

Enclosure

cc: Kim Williams

Job No. 910034
SB/cr

OCT 21 1994

DRAINAGE INFORMATION SHEET

PROJECT TITLE: Romano's Macaroni Grill ZONE ATLAS/DRNG. FILE #: J-19 / 1055
LEGAL DESCRIPTION: Portion Tract A - Winrock Center Addition
CITY ADDRESS: Louisiana & I-40
ENGINEERING FIRM: D. Mark Goodwin & Assoc. P.A. CONTACT: Mark Goodwin, P.E.
ADDRESS: PO Box 90606 87199 PHONE: 828-2200
OWNER: Chili's Inc. CONTACT: Ronald Bohannon
ADDRESS: 4600 Montgomery Blvd NE PHONE: 883-7592
ARCHITECT: Kastendieck-Steffey CONTACT: N/A
ADDRESS: Houston, TX PHONE: (713) 623-6373
SURVEYOR: D. Mark Goodwin & Assoc. P.A. CONTACT: Richard Borgel, L.S.
ADDRESS: PO Box 90606 87199 PHONE: 828-2200
CONTRACTOR: N/A CONTACT: _____
ADDRESS: _____ PHONE: _____

PRE-DESIGN MEETING

☒ YES

☐ NO

☐ COPY OF CONFERENCE RECAP
SHEET PROVIDED

TYPE OF SUBMITTAL:

☐ DRAINAGE REPORT

☐ DRAINAGE PLAN

☐ CONCEPTUAL GRADING & DRAINAGE PLAN

☐ GRADING PLAN

☐ EROSION CONTROL PLAN

☒ ENGINEER'S CERTIFICATION

DRB NO. _____

EPC NO. _____

PROJ. NO. _____

CHECK TYPE OF APPROVAL SOUGHT:

☐ SKETCH PLAT APPROVAL

☐ PRELIMINARY PLAT APPROVAL

☐ SITE DEVELOPMENT PLAN APPROVAL

☐ FINAL PLAT APPROVAL

☐ BUILDING PERMIT APPROVAL

☐ FOUNDATION PERMIT APPROVAL

☒ CERTIFICATE OF OCCUPANCY APPROVAL

☐ ROUGH GRADING PERMIT APPROVAL

☐ GRADING/PAVING PERMIT APPROVAL

☐ OTHER _____ SPECIFY

DATE SUBMITTED: 1/5/93

BY: Mark Goodwin

Mark Goodwin, P.E.

Orders

J19-D55

Log out of Computer

Verbal Cmts Rejected on

1/4/93

Thanks
BPM

DRAINAGE INFORMATION SHEET

PROJECT TITLE: ROMANO'S MACARONI GRILL ZONE ATLAS/DRNG. FILE #: J-19/D55

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

LEGAL DESCRIPTION: TRACT "C-1" AND PORTION OF TRACT "A" OF THE WINROCK CENTER ADDITION

CITY ADDRESS: 2100 LOUISIANA BOULEVARD

ENGINEERING FIRM: TIERRA WEST DEV. MAGT. SER. CONTACT: RONALD R. BOHANNAN OR SHAHAB BIAZAR

ADDRESS: 4600 MONTGOMERY NE SUITE #3, 87109 PHONE: (505) 883-7592

OWNER: BRINKER INTERNATIONAL CONTACT: KIM WILLIAMS

ADDRESS: 6820 LBJ, FREEWAY, DALLAS, TX 75240 PHONE: (214) 770-8832

ARCHITECT: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

SURVEYOR: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

CONTRACTOR: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

TYPE OF SUBMITTAL:

☐ DRAINAGE REPORT

☐ DRAINAGE PLAN

☐ CONCEPTUAL GRADING & DRAINAGE PLAN

☒ GRADING PLAN

☐ EROSION CONTROL PLAN

☐ ENGINEER'S CERTIFICATION

☒ OTHER (Modifying Existing Grading)

PRE-DESIGN MEETING:

☐ YES

☒ NO

☐ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

☐ SKETCH PLAN APPROVAL

☐ PRELIMINARY PLAT APPROVAL

☐ S. DEV. PLAN FOR SUB'D. APPROVAL

☐ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL

☐ SECTOR PLAN APPROVAL

☐ FINAL PLAN APPROVAL

☐ FOUNDATION PERMIT APPROVAL

☐ BUILDING PERMIT APPROVAL

☐ CERTIFICATE OF OCCUPANCY APPROVAL

☒ GRADING PERMIT APPROVAL

☐ PAVING PERMIT APPROVAL

☐ S. A. D. DRAINAGE REPORT

☐ DRAINAGE REQUIREMENTS

☐ OTHER _____ (SPECIFY)

DATE SUBMITTED: 10 / 18 / 94

BY: SHAHAB BIAZAR

OCT 21 1994

DRAINAGE INFORMATION SHEET

PROJECT TITLE: Romano's Macaroni Grill ZONE ATLAS/DRNG. FILE #: J-19 / 055
LEGAL DESCRIPTION: Portion Tract A - Winrock Center Addition
CITY ADDRESS: Louisiana & I-40
ENGINEERING FIRM: D. Mark Goodwin & Assoc. P.A. CONTACT: Mark Goodwin, P.E.
ADDRESS: PO Box 90606 87199 PHONE: 828-2200
OWNER: Chili's Inc. CONTACT: Ronald Bohannon
ADDRESS: 4600 Montgomery Blvd NE PHONE: 883-7592
ARCHITECT: Kastendieck-Steffey CONTACT: N/A
ADDRESS: Houston, TX PHONE: (713) 623-6373
SURVEYOR: D. Mark Goodwin & Assoc. P.A. CONTACT: Richard Borgel, L.S.
ADDRESS: PO Box 90606 87199 PHONE: 828-2200
CONTRACTOR: N/A CONTACT: _____
ADDRESS: _____ PHONE: _____

PRE-DESIGN MEETING

☒ YES

☐ NO

☐ COPY OF CONFERENCE RECAP
SHEET PROVIDED

DRB NO. _____

EPC NO. _____

PROJ. NO. _____

TYPE OF SUBMITTAL:

☐ DRAINAGE REPORT

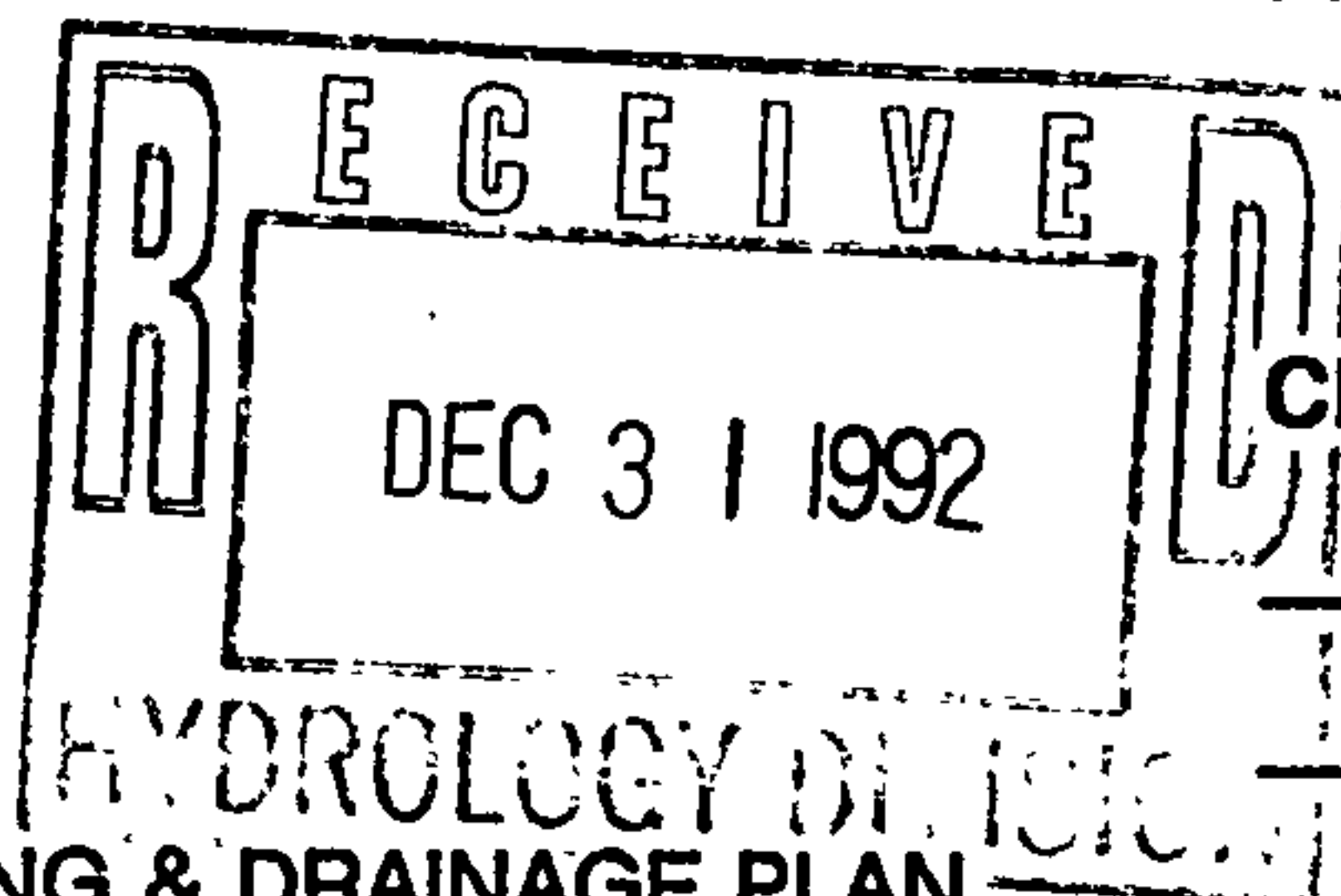
☐ DRAINAGE PLAN

☐ CONCEPTUAL GRADING & DRAINAGE PLAN

☐ GRADING PLAN

☐ EROSION CONTROL PLAN

☒ ENGINEER'S CERTIFICATION



CHECK TYPE OF APPROVAL SOUGHT:

☐ SKETCH PLAT APPROVAL

☐ PRELIMINARY PLAT APPROVAL

☐ SITE DEVELOPMENT PLAN APPROVAL

☐ FINAL PLAT APPROVAL

☐ BUILDING PERMIT APPROVAL

☐ FOUNDATION PERMIT APPROVAL

☒ CERTIFICATE OF OCCUPANCY APPROVAL

☐ ROUGH GRADING PERMIT APPROVAL

☐ GRADING/PAVING PERMIT APPROVAL

☐ OTHER _____ SPECIFY

DATE SUBMITTED: 12/31/92

BY: Mark Goodwin

Mark Goodwin, P.E.

VERBAL cmts



D. Mark Goodwin & Associates, P.A.
Consulting Engineers and Surveyors

P.O. BOX 90606, ALBUQUERQUE, NM 87199
(505) 345-2010

OCT 20 1994

October 19, 1994

*Bernie Montoya
Hydrology Division
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87199*

Re: *Romano's Macaroni Grill (J19/D55), Approved 1/15/92*

Dear Mr. Montoya:

This letter grants permission to Tierra West Development Management Services, Mr. Ronald Bohannon, for the use of the previously approved Grading and Drainage Plan on the referenced project for the expansion of this site. We have no objection to the use of their title block for their purposes.

Please contact me if we can be of further service.

Sincerely,

MARK GOODWIN AND ASSOCIATES, P.A.

A handwritten signature in cursive script, appearing to read "Mark Goodwin".

Mark Goodwin, P.E.

DMG:smr

xc: *Tierra West Development Management Services*



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

January 15, 1992

Mark Goodwin, P.E.
D. Mark Goodwin & Associates
Post Office Box 90606
Albuquerque, New Mexico 87199

RE: DRAINAGE PLAN FOR ROMANO'S MACARONI GRILL (J-19/D55)
ENGINEER'S STAMP DATED JANUARY 2, 1992

Dear Mr. Goodwin:

Based on the information provided on your submittal of January 2, 1992, the referenced site is approved for Site Development. Prior to Building Permit release, the following must be addressed.

1. Strongly advisable to locate the roof drains under the sidewalk and through the curb onto the asphalt parking area.
2. Please include the as-built information on the existing storm sewer line. You propose to remove and reconstruct the drop inlet. Where does the line come from and where does it eventually drain into?
3. Please include the capacity of the proposed Type "D" inlet.

If I can be of further assistance, please feel free to call me at 768-2650.

Cordially,

Bernie J. Montoya
Bernie J. Montoya, C.E.
Engineering Assistant

BJM/bsj
(WP+3141)

PUBLIC WORKS DEPARTMENT

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

ENGINEERING GROUP

Telephone (505) 768-2500

AN EQUAL OPPORTUNITY EMPLOYER



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

February 6, 1992

Mark Goodwin, P.E.
D. Mark Goodwin & Associates
Post Office Box 90606
Albuquerque, New Mexico 87199

RE: REVISED DRAINAGE PLAN FOR ROMANO'S MACARONI GRILL
(J-19/D55) REVISION DATED JANUARY 20, 1992

Dear Mr. Goodwin:

Based on the information provided on your submittal of February 3, 1992, the above referenced plan is approved for Building Permit.

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

Prior to Certificate of Occupancy release, Engineer's Certification per the DPM Checklist will be required.

If I can be of further assistance, please feel free to call me at 768-2650.

Cordially,

Bernie J. Montoya
Bernie J. Montoya, C.E.
Engineering Assistant

xc: Alan Martinez

BJM/bsj
(WP+3141)

PUBLIC WORKS DEPARTMENT

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

ENGINEERING GROUP

Telephone (505) 768-2500

AN EQUAL OPPORTUNITY EMPLOYER



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

January 7, 1993

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

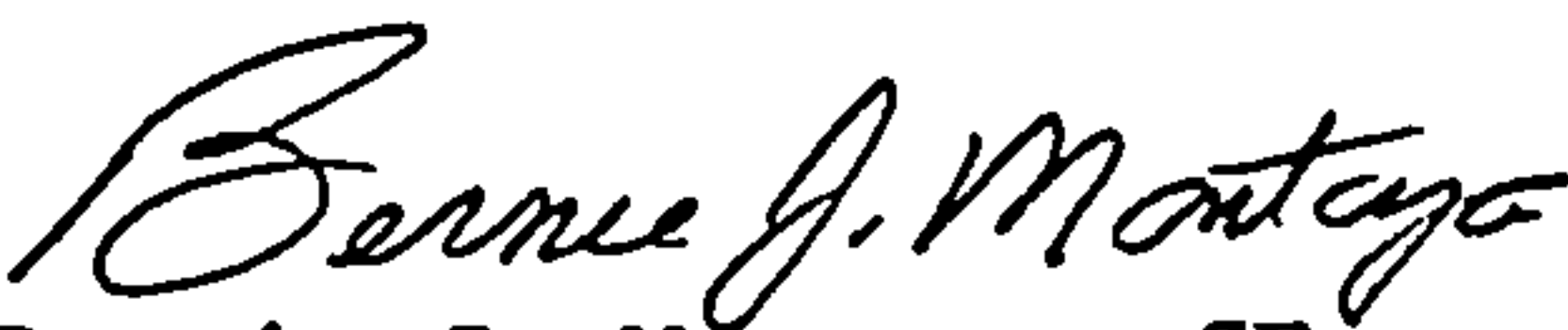
RE: REVISED ENGINEER CERTIFICATION FOR ROMANO'S MACARONI GRILL
(J19-D55) CERTIFICATION STATEMENT DATED 1/6/93.

Dear Mr. Goodwin:

Based on the information provided on your January 6, 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, CE
Engineering Assistant

BJM/d1/WPHYD/7429

xc: Alan Martinez
File

PUBLIC WORKS DEPARTMENT

DRAINAGE INFORMATION SHEET

PROJECT TITLE: Romano's Macaroni Grill ZONE ATLAS/DRNG. FILE #: J-19/D55
LEGAL DESCRIPTION: Portion Tract A - Winrock Center Addition
CITY ADDRESS: Louisiana & I-40
ENGINEERING FIRM: D. Mark Goodwin & Assoc. P.A. CONTACT: Mark Goodwin, P.E.
ADDRESS: PO Box 90606 87199 PHONE: 828-2200
OWNER: Chili's Inc. CONTACT: Ronald Bohannon
ADDRESS: 4600 Montgomery Blvd NE PHONE: 883-7592
ARCHITECT: Kastendieck-Steffey CONTACT: N/A
ADDRESS: Houston, TX PHONE: (713) 623-6373
SURVEYOR: D. Mark Goodwin & Assoc. P.A. CONTACT: Richard Borgel, L.S.
ADDRESS: PO Box 90606 87199 PHONE: 828-2200
CONTRACTOR: N/A CONTACT: _____
ADDRESS: _____ PHONE: _____

PRE-DESIGN MEETING

☒ YES
☐ 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 CONTROL PLAN
☐ ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL SOUGHT:

☐ SKETCH PLAT APPROVAL
☐ PRELIMINARY PLAT APPROVAL
☒ SITE DEVELOPMENT PLAN APPROVAL
☐ FINAL PLAT APPROVAL
☒ BUILDING PERMIT APPROVAL
☐ FOUNDATION PERMIT APPROVAL
☐ CERTIFICATE OF OCCUPANCY APPROVAL
☐ ROUGH GRADING PERMIT APPROVAL
☐ GRADING/PAVING PERMIT APPROVAL
☐ OTHER _____ SPECIFY

DATE SUBMITTED: 1/2/92

BY: Mark Goodwin

Mark Goodwin, P.E.

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

JW Jim [unclear]
9/20/91
Manning

PRE-DESIGN CONFERENCE

DRAINAGE FILE/ZONE ATLAS PAGE NO.: _____ DATE: 11/6/91
EPC NO.: _____ DRB NO.: _____ ZONE: _____
SUBJECT: WINROCK PHASE 1 PAD 3
STREET ADDRESS: INTERSECTION OF I-40 & LOUISIANA
LEGAL DESCRIPTION: WINROCK Shopping Ctr.

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

ATTENDANCE:

	WHO	REPRESENTING
	<u>RON BOHANNAN</u>	_____
	<u>FRED J. AGUIRRE</u>	_____
	_____	_____

FINDINGS:
AN APPROVED DRAINAGE PLAN IS REQUIRED
FOR SITE PLAN / BUILDING PERMIT APPROVAL
THIS APPROVAL IS FOR PHASE 1 PAD 3 SITE PLAN
"ONLY".

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

SIGNED: [Signature] SIGNED: [Signature]
TITLE: _____ TITLE: _____
DATE: 11/6/91 DATE: 11/6/91

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

NOV 8 1991
REGULATIVE
D. [unclear] GOSWAMI
& ASSOCIATES, P.A.



D. Mark Goodwin & Associates, P.A.
Consulting Engineers and Surveyors

JOB Romanos

SUBJECT Drainage

JOB NO. _____

SHEET 1 OF 3

BY MG JAN

DATE 12/31/91

CHECKED _____

DATE _____

There are 2 existing drainage areas: 1 developed & 1 undeveloped. There will be 2 new drainage areas: both developed.

Drainage Area No. 1 - Undeveloped

$$\text{Area} = 0.64 \text{ Ac.}$$

$$P(100-6) = 2.35 \text{ in}$$

$$T_c = 10 \text{ min.}$$

$$I(100-6) = 4.97 \text{ in/hr.}$$

Composite "C"

PAVING	.95	.17	.18
undeveloped	.40	.45	.18
		<u>.64</u>	<u>.36</u>

$$\text{Composite } C = 0.56$$

$$Q(100-6) = 1.78 \text{ cfs}$$

$$\text{Vol. (100-6) per SCS} = 2556 \text{ Cu. Ft.}$$

Drainage Area No. 2 - Undeveloped

$$\text{Area} = 0.96 \text{ Ac.}$$

$$P(100-6) = 2.35 \text{ in}$$

$$T_c = 10 \text{ min.}$$

$$I(100-6) = 4.97 \text{ in/hr.}$$



D. Mark Goodwin & Associates, P.A.
Consulting Engineers and Surveyors

JOB Romano's
SUBJECT Drainage
JOB NO. _____ SHEET 2 OF 3
BY MG DATE 12/31/91
CHECKED _____ DATE _____

Composite "C"

Roof	.90	.06	.05
Paving	.95	.84	.80
Landscaping	.25	.06	.02
		<u>0.96</u>	<u>.87</u>

Composite C = 0.90

$Q(100-C) = 4.30 \text{ cfs}$

Vol. = 4879 cu. Ft.

Drainage Area No. 1 - Developed

Area = 0.64 Ac.

$P(100-C) = 2.35 \text{ in}$

$T_c = 10 \text{ min.}$

$I(100-C) = 4.97 \text{ in/hr}$

Composite "C"

Roof	.90	.09	.08
Paving	.95	.47	.47
Landscaped	.25	.06	.02
		<u>.64</u>	<u>.57</u>

Composite C = 0.89

$Q(100-C) = 2.83$

Vol. = 3136 cu. Ft.



D. Mark Goodwin & Associates, P.A.
Consulting Engineers and Surveyors

JOB Romanos

SUBJECT Drainage

JOB NO. _____

SHEET 3 OF 3

BY MG

DATE 12/31/91

CHECKED _____

DATE _____

Drainage Area 2 - Developed

$$\text{Area} = 0.96 \text{ Ac}$$

$$P(100-6) = 2.35 \text{ in}$$

$$T_c = 10 \text{ min.}$$

$$I(100-6) = 4.97 \text{ in/hr}$$

Composite "C"

Roof	.09	.90	.08
Paving	.12	.95	.68
Landscaped	.15	.25	.04
	<u>.96</u>		<u>.80</u>

$$\text{Composite "C"} = 0.83$$

$$Q(100-6) = 3.96 \text{ cfs}$$

$$\text{Vol.} = 4356 \text{ cu. Ft.}$$

Size Channel & sidewalk culverts for $Q = 4 \text{ cfs}$

$$Q = C L H^{3/2}$$

$$C = 2.9$$

$$H = 0.5$$

$$Q = 4$$

$$L = \frac{Q}{C H^{3/2}} = 3.90' \text{ USC } 2-24" \text{ culverts}$$

DRAINAGE INFORMATION SHEET

PROJECT TITLE: Romano's Macaroni Grill ZONE ATLAS/DRNG. FILE #: J-19/D55
LEGAL DESCRIPTION: Portion Tract A - Winrock Center Addition
CITY ADDRESS: Louisiana & I-40
ENGINEERING FIRM: D. Mark Goodwin & Assoc. P.A. CONTACT: Mark Goodwin, P.E.
ADDRESS: PO Box 90606 87199 PHONE: 828-2200
OWNER: Chili's Inc. CONTACT: Ronald Bohannon
ADDRESS: 4600 Montgomery Blvd NE PHONE: 883-7592
ARCHITECT: Kastendieck-Steffey CONTACT: N/A
ADDRESS: Houston, TX PHONE: (713) 623-6373
SURVEYOR: D. Mark Goodwin & Assoc. P.A. CONTACT: Richard Borgel, L.S.
ADDRESS: PO Box 90606 87199 PHONE: 828-2200
CONTRACTOR: N/A CONTACT: _____
ADDRESS: _____ PHONE: _____

PRE-DESIGN MEETING

☒ YES
☐ 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 CONTROL PLAN
☐ ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL SOUGHT:

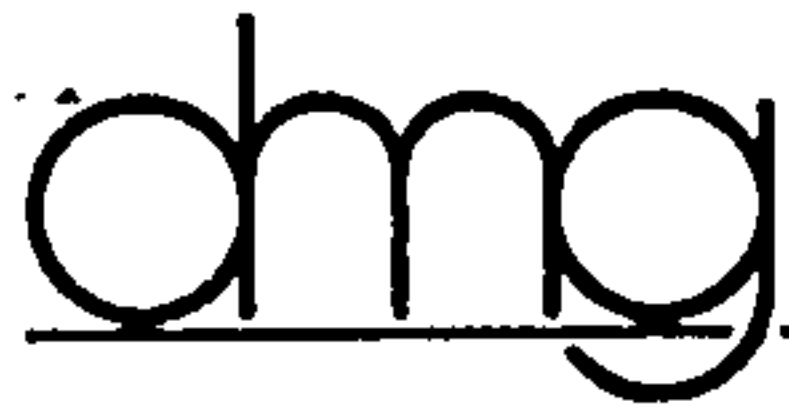
☐ SKETCH PLAT APPROVAL
☐ PRELIMINARY PLAT APPROVAL
☐ SITE DEVELOPMENT PLAN APPROVAL
☐ FINAL PLAT APPROVAL
☒ BUILDING PERMIT APPROVAL
☐ FOUNDATION PERMIT APPROVAL
☐ CERTIFICATE OF OCCUPANCY APPROVAL
☐ ROUGH GRADING PERMIT APPROVAL
☐ GRADING/PAVING PERMIT APPROVAL
☐ OTHER _____ SPECIFY

FEB 3 1992

DATE SUBMITTED: 2/3/92

BY: Mark Goodwin

Mark Goodwin, P.E.



D. Mark Goodwin & Associates, P.A.
Consulting Engineers and Surveyors

P.O. BOX 90606, ALBUQUERQUE, NM 87199
(505) 828-2200

FEB 3 1992

February 3, 1992

Mr. Bernie Montoya
Hydrology Department
City of Albuquerque
PO Box 1293
Albuquerque, NM 87103

Re: Romano's Macaroni Grill (J-19/D55)

Dear Mr. Montoya:

In response to your letter of January 15, 1992, we offer the following:

1. We agree to the placement of roof drains through the face of curb. The Architect's final plans will indicate such placement.
2. As-built information for the storm drain does not exist. The system is privately owned by Winrock and discharges to the I-40 channel in several locations via 30-inch outlets. Most of the manholes have been paved over in the past 25 years. The inlet we are modifying is at the upstream end of the system.
3. We have included the Capacity Calculation you requested for the inlet. As you can see there is sufficient capacity.

We appreciate your concerns and hope that this response resolves them. Call us if you should require anything else.

Sincerely,

D. MARK GOODWIN AND ASSOCIATES, P.A.

Mark Goodwin, P.E.

DMG:kmj

Enc



D. Mark Goodwin & Associates, P.A.
Consulting Engineers and Surveyors

JOB Romano's
SUBJECT Drainage
JOB NO. _____ SHEET 1 OF 1
BY MG DATE 1/17/92
CHECKED _____ DATE _____

FEB 3 1992

Need to determine Capacity of Proposed
Type "D" inlet. We have a Sump condition

$$\Rightarrow Q = 5.37 A H^{1/2}$$

$$\text{Area } A = 4.39 \text{ sq. ft.}$$

$$H = 1.90'$$

$$Q_{\text{MAX}} = 5.37 (4.39) (1.90)^{1/2} = 32 \text{ cfs} \gg 3 \text{ cfs}$$

$\Rightarrow$ Grate is more than adequate



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

October 26, 1994

Ronald R. Bohannon
Tierra West Dev. Magt. Service
4600 Montgomery NE Suite #3
Albuquerque, NM 87109

RE: DRAIANGE PLAN FOR AN ADDITION TO ROMANO'S MACARONI GRILL (J19-D55)
ENGINEER'S STAMP DATED 10/20/94.

Dear Mr. Bohannon:

Based on the information provided on your October 21, 1994 submittal, the above referenced site is approved for Building Permit.

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

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 Associate

BJM/d1/WPHYD/7429

c: Andrew Garcia
File

DRAINAGE INFORMATION SHEET

PROJECT TITLE: Romano's Macaroni Grill ZONE ATLAS/DRNG. FILE #: J-19/D55
 LEGAL DESCRIPTION: Portion Tract A - Winrock Center Addition
 CITY ADDRESS: Louisiana & I-40
 ENGINEERING FIRM: D. Mark Goodwin & Assoc. P.A. CONTACT: Mark Goodwin, P.E.
 ADDRESS: PO Box 90606 87199 PHONE: 828-2200
 OWNER: Chili's Inc. CONTACT: Ronald Bohannon
 ADDRESS: 4600 Montgomery Blvd NE PHONE: 883-7592
 ARCHITECT: Kastendieck-Steffey CONTACT: N/A
 ADDRESS: Houston, TX PHONE: (713) 623-6373
 SURVEYOR: D. Mark Goodwin & Assoc. P.A. CONTACT: Richard Borgel, L.S.
 ADDRESS: PO Box 90606 87199 PHONE: 828-2200
 CONTRACTOR: N/A CONTACT: _____
 ADDRESS: _____ PHONE: _____

PRE-DESIGN MEETING

☒ YES
☐ 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 CONTROL PLAN
☐ ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL SOUGHT:

☐ SKETCH PLAT APPROVAL
☐ PRELIMINARY PLAT APPROVAL
☐ SITE DEVELOPMENT PLAN APPROVAL
☐ FINAL PLAT APPROVAL
☒ BUILDING PERMIT APPROVAL
☐ FOUNDATION PERMIT APPROVAL
☐ CERTIFICATE OF OCCUPANCY APPROVAL
☐ ROUGH GRADING PERMIT APPROVAL
☐ GRADING/PAVING PERMIT APPROVAL
☐ OTHER _____ SPECIFY _____

DATE SUBMITTED: 2/3/92

BY: Mark Goodwin

Mark Goodwin, P.E.

RECEIVED
 MAR 09 1998
 HYDROLOGY SECTION

DRAINAGE REPORT
FOR
TRACT A1A
OF
WINROCK CENTER ADDITION
ROMANO'S MACARONI GRILL

Prepared by:

Tierra West, LLC
4421 McLeod Rd., NE, Suite D
Albuquerque, New Mexico 87109

February 25, 1998

I certify that this report was prepared under my supervision, and I am a registered professional engineer in the State of New Mexico in good standing.

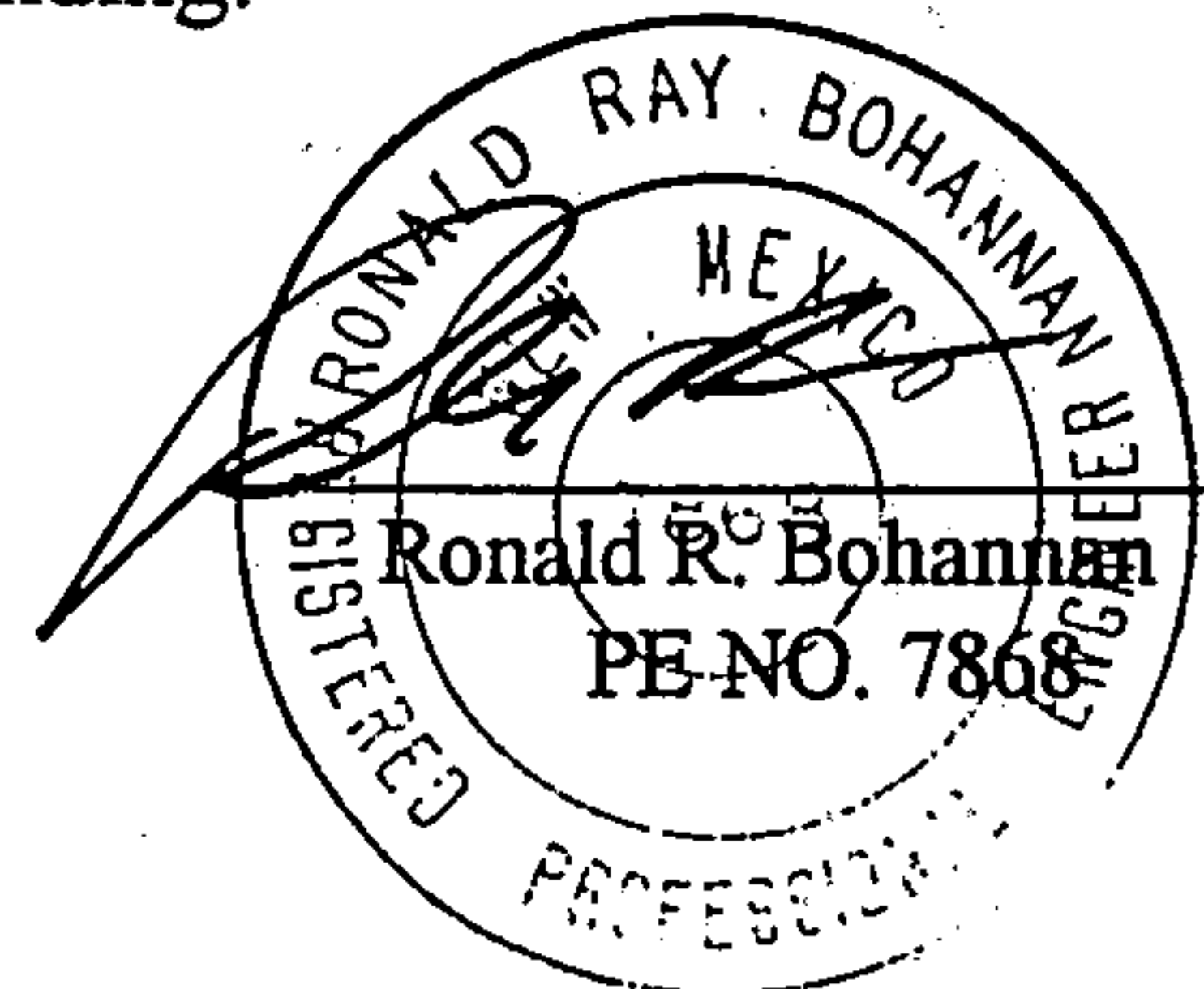
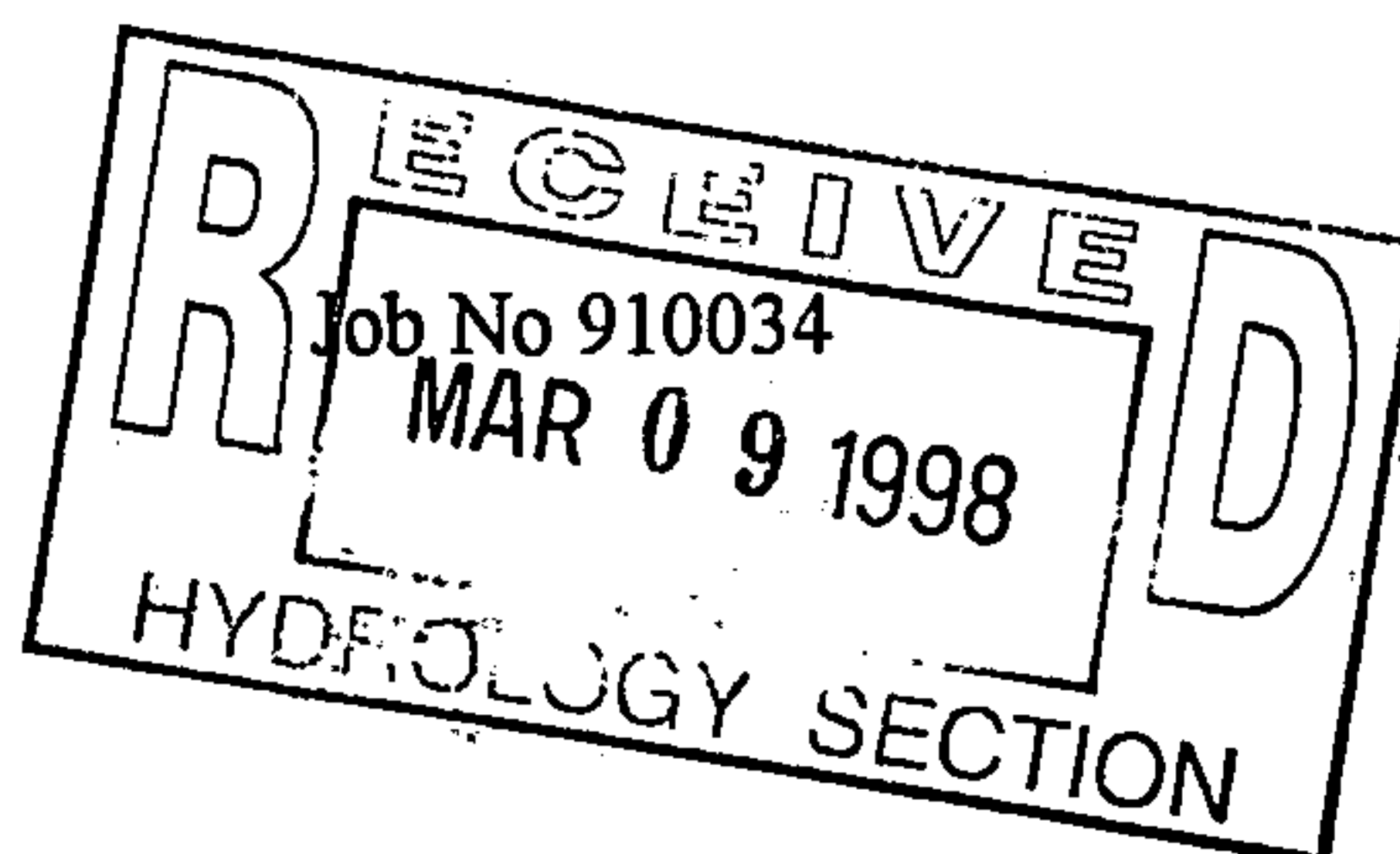


TABLE OF CONTENTS

SECTION I - REPORT

Vicinity Map

Location

Purpose

Existing Drainage Conditions

Flood Plain and Soil Conditions

Proposed Conditions and On-Site Drainage Management

FEMA Map

Soil Map

Emergency Overflow

Summary

Infrastructure List & Calculations

SECTION II - AHYMO FILES

AHYMO INPUT FILE (100 & 10-year Storm)

AHYMO SUMMARY OUTPUT

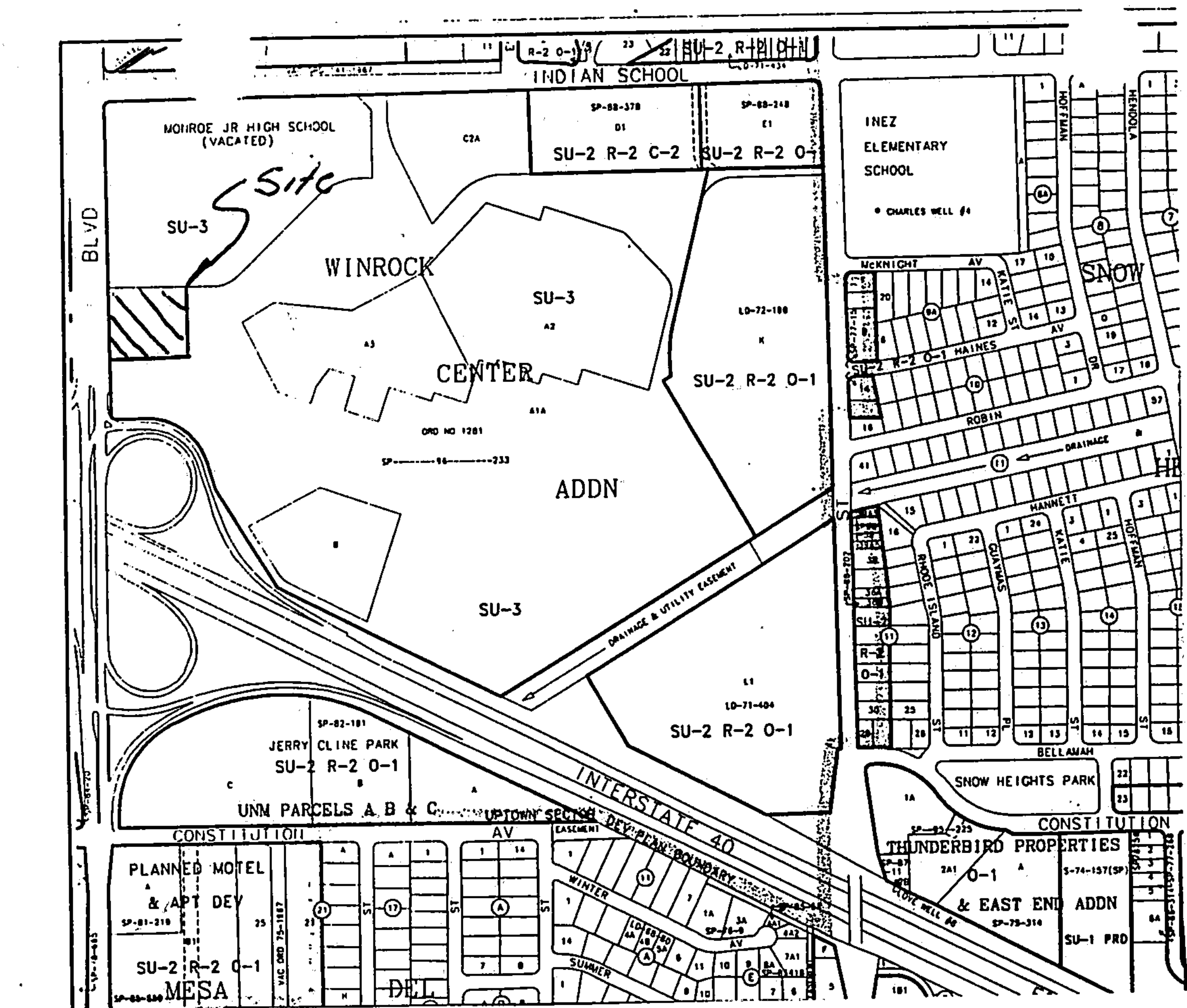
SECTION III

Approved Drainage Report (J19-D55)

Correspondence from City of Albuquerque Hydrology Department

Section I

Report



LEGAL DESCRIPTION

T10N
R4E
SEC 18

UNIFORM PROPERTY CODE
1-018-058

J-19-Z

Location

The site is located near the intersection of Interstate 40 and Louisiana Boulevard, NE within the Winrock Shopping Center in Albuquerque's northeast heights. It is bounded on the north by the entrance to the Winrock Shopping Center, on the south by Interstate 40, on the east by the Winrock Shopping Center's outer loop road and on the west by Louisiana Boulevard. The site is shown on the enclosed zone atlas page.

Purpose

The owners of the property are proposing to add an outdoor patio area to the existing Macaroni Grill Restaurant. The purpose of this report is to allow the drainage management plan to build the outdoor patio area on the site. The development of the site was already approved under J19-D55, which was prepared by D. Mark Goodwin & Associates and modified under one expansion.

Existing Drainage Conditions

The site lies within a developed drainage basin that was approved under J19-D55. The site was developed in two basins, designated Basin DA 1 & DA 2, as shown on the original grading and drainage plan. The southern drainage basin (DA 1) drains half of the building and the southern parking lot to the main drive located on Louisiana Boulevard. Basin DA 2 drains the northern part of the building and roof structure as well as the northern parking lot to a pair of sidewalk culverts and to Louisiana Boulevard. Both basins free discharge to Louisiana Boulevard. The original report prepared by D. Mark Goodwin & Associates used the rational method to compute the flows and estimate the flows for DA 1 & DA 2 at 1.73 and 4.3 cfs, respectfully. The high flows represent that, at the time the original report was written, the site was a fully paved service station site. The site was a service station prior to the enactment of the drainage ordinance and discharged the developed flows from the site.

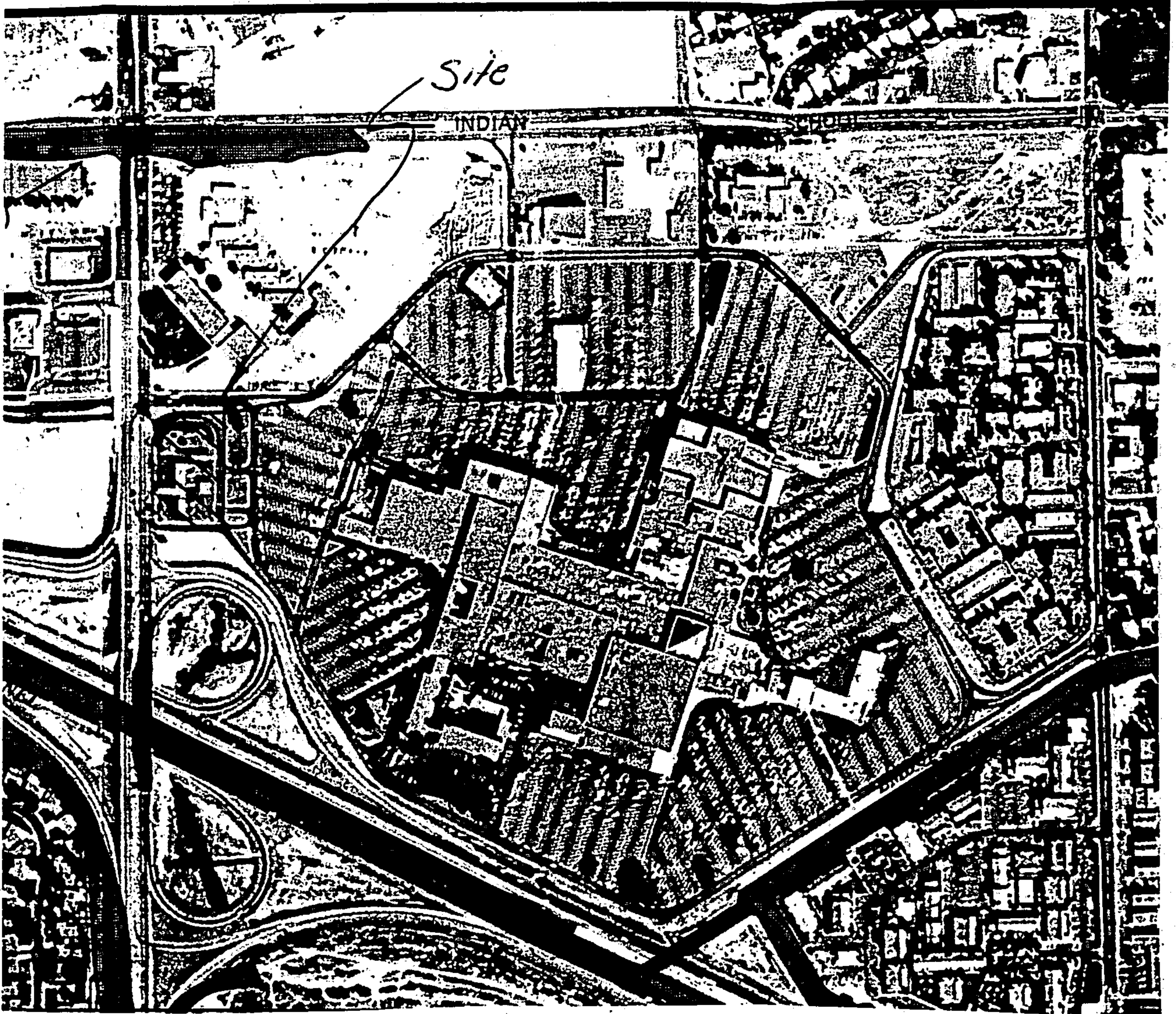
Flood Plain/Soil Conditions

The site is located on FEMA Map No. 30 panel 3500020030C as shown on the attached excerpt. The map shows that the site does not lie within any 100 year flood plains.

The site contains two soil types. As indicated on the Soil Map (sheet # 31) from the Soil Conservation Service of Bernalillo County, the soil type is EtC Embudo-Tijeras Complex. The EtC series consists of gravelly fine sandy loam and very gravelly sand. Runoff is medium, and the hazard of soil erosion and/or blowing is moderate. The other soil type is cut and fill (Cu) which consists of sandy loam and very gravelly sand that has been mixed by filling for residential, industrial, and business developments.

Proposed Conditions and On-Site/Off-Site Drainage Management

The purpose of this amendment to the report, as previously stated, is the development of a patio area on the northern drainage basin. The developed conditions and the developed flows for both basins were reanalyzed using AHYMO. The developed flows under the new hydrology for DA 1 & DA 2 are 1.87 cfs and 2.80 cfs, respectively. There will be no change for either the northern or southern basins based upon the development of the new patio. The



FIRM

FLOOD INSURANCE RATE MAP

CITY OF

ALBUQUERQUE,

NEW MEXICO

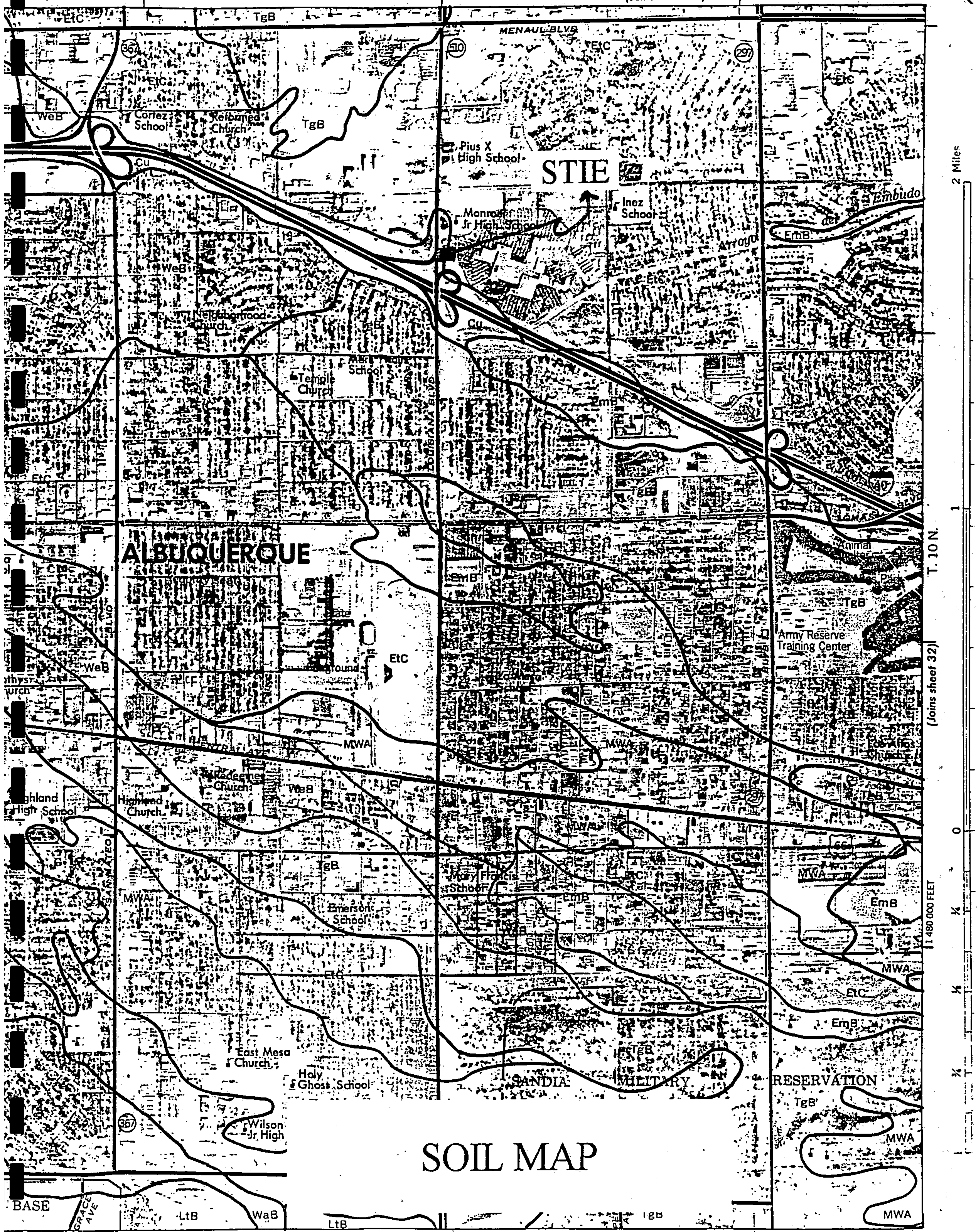
BERNALILLO COUNTY

COMMUNITY-PANEL NUMBER

350002 0030 C

EFFECTIVE DATE:

OCTOBER 14, 1983



sidewalk culverts were analyzed under the new flows and have the capacity to handle the developed flows. The grading plan for the patio area is enclosed in the map pocket attached to the report. The previous drainage report was not on file with the City and therefore it was not included with this submittal, however, the original grading plan is included with the submittal.

Emergency Overflow

The southern basin flows through the Louisiana Boulevard entrance which has ample capacity for the developed flows and larger events. The northern basin flows through the two sidewalk culverts. Should an event greater than the 100 year - six hour storm occur, the site has been graded where the flow will continue to flow over the sidewalk culvert and to the entrance of Winrock Shopping Center through a landscaped area.

Summary

The site of the Macaroni Grill Restaurant, located within the Winrock Shopping Center, was previously a fully developed service station that free discharged the entire site to Louisiana Boulevard. The site was developed as the Macaroni Grill Restaurant in 1992, and continues to free discharge to Louisiana Boulevard in two basins. The expansion of an outdoor patio area will not change the flows from either basin or the points of discharge. Basin DA 1& DA 2 discharge 1.87 and 2.80 cfs, respectfully.

Infrastructure List Requirements

There will be no required modifications to the drainage structures in the public right-of-way and, therefore, there is no need for a drainage infrastructure list. This report was prepared in accordance with Section 22-2, Hydrology of the Development Process Manual Volume 2, Design Criteria for the City of Albuquerque in cooperation with Bernalillo County, NM in AMAFCA June, 1993.

Section II

AHYMO FILES

* MACARONI GRILL

*23456789 123456789 123456789 123456789 123456789 123456789 123456789

* 100-YEAR STORM, 6 HR STORM (UNDEVELOPED CONDITIONS)

*

START TIME=0.0

*

* BASIN DA 2 NORTH PARKING LOT

*

RAINFALL TYPE=1 RAIN QUARTER=0.0 IN

RAIN ONE=2.14 IN RAIN SIX=2.60 IN

RAIN DAY=3.10 IN DT=0.33333 HR

COMPUTE NM HYD ID=1 HYD NO=110.1 AREA=0.0015 SQ MI

PER A=100.00 PER B=0.0 PER C=0.0 PER D=0.0

TP=-0.1333 HR MASS RAINFALL=-1

PRINT HYD ID=1 CODE=1

*

START TIME=0.0

*

* BASIN DA 1 SOUTH PARKING LOT

*

RAINFALL TYPE=1 RAIN QUARTER=0.0 IN

RAIN ONE=2.14 IN RAIN SIX=2.60 IN

RAIN DAY=3.10 IN DT=0.33333 HR

COMPUTE NM HYD ID=1 HYD NO=110.2 AREA=0.0010 SQ MI

PER A=100.00 PER B=0.0 PER C=0.0 PER D=0.0

TP=-0.1333 HR MASS RAINFALL=-1

PRINT HYD ID=1 CODE=1

*

*

* 100-YEAR STORM, 6 HR STORM (DEVELOPED CONDITIONS)

*

START TIME=0.0

*

* BASIN DA 2 NORTH PARKING LOT

*

RAINFALL TYPE=1 RAIN QUARTER=0.0 IN

RAIN ONE=2.14 IN RAIN SIX=2.60 IN

RAIN DAY=3.10 IN DT=0.33333 HR

COMPUTE NM HYD ID=1 HYD NO=110.1 AREA=0.0015 SQ MI

```

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*
START          TIME=0.0
*
* BASIN DA 1 SOUTH PARKING LOT
*
COMPUTE NM HYD  ID=1 HYD NO=110.2 AREA=0.0010 SQ MI      *
      PER A=0.00 PER B=10.0 PER C=0.0 PER D=90.0      *
      TP=-0.1333 HR MASS RAINFALL=-1
COMPUTE NM HYD  ID=1 HYD NO=110.2 AREA=0.0015 SQ MI      *
      PER A=0.00 PER B=10.0 PER C=0.0 PER D=90.0      *
      TP=-0.1333 HR MASS RAINFALL=-1
PRINT HYD      ID=1 CODE=1
*
*****
*
*****
* 10-YEAR STORM, 6 HR STORM (DEVELOPED CONDITIONS)
*****
*
START          TIME=0.0
*
* BASIN DA 2 NORTH PARKING LOT
*
RAINFALL      TYPE=1 RAIN QUARTER=0.0 IN      *
      RAIN ONE=1.42 IN RAIN SIX=1.73 IN      *
      RAIN DAY=2.07 IN DT=0.0 HR
COMPUTE NM HYD  ID=1 HYD NO=110.1 AREA=0.0015 SQ MI      *
      PER A=0.00 PER B=10.0 PER C=0.0 PER D=90.0      *
      TP=-0.1333 HR MASS RAINFALL=-1
PRINT HYD      ID=1 CODE=1
*
START          TIME=0.0
*
* BASIN DA 1 SOUTH PARKING LOT
*
RAINFALL      TYPE=1 RAIN QUARTER=0.0 IN      *
      RAIN ONE=1.42 IN RAIN SIX=1.73 IN      *
      RAIN DAY=2.07 IN DT=0.0 HR
COMPUTE NM HYD  ID=1 HYD NO=110.2 AREA=0.0010 SQ MI      *
      PER A=0.00 PER B=10.0 PER C=0.0 PER D=90.0      *
      TP=-0.1333 HR MASS RAINFALL=-1
PRINT HYD      ID=1 CODE=1

```

*

*

FINISH

**AHYMO
OUTPUT
FILE**

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 INPUT FILE = a:9134.dat USER NO.=
 R_BOHANN.I01

CFS	PAGE = 1	FROM TO	PEAK	RUNOFF	TIME TO		
RUNOFF	PEAK	PER	HYDROGRAPH ID	ID	AREA	DISCHARGE	VOLUME
(INCHES)	(HOURS)	ACRE	IDENTIFICATION	NO. NO.	(SQ MI)	(CFS)	(AC-FT)
COMMAND	NOTATION						
START						TIME=	
.00							
RAINFALL TYPE= 1							
RAIN6= 2.600							
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1.667 1.333 PER IMP=	.00						
START						TIME=	
.00							
RAINFALL TYPE= 1							
RAIN6= 2.600							
COMPUTE NM HYD	110.20	- 1	.00100	.86	.033	.61770	
1.667 1.339 PER IMP=	.00						
START						TIME=	
.00							
RAINFALL TYPE= 1							
RAIN6= 2.600							
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1.667 2.920 PER IMP=	90.00						
START						TIME=	
.00							
COMPUTE NM HYD	110.20	- 1	.00100	1.87	.118	2.20577	
1.667 2.920 PER IMP=	90.00						
COMPUTE NM HYD	110.20	- 1	.00150	2.80	.176	2.20577	
1.667 2.920 PER IMP=	90.00						
START						TIME=	
.00							
RAINFALL TYPE= 1							
RAIN6= 1.730							
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1.667 1.881 PER IMP=	90.00						
START						TIME=	
.00							
RAINFALL TYPE= 1							

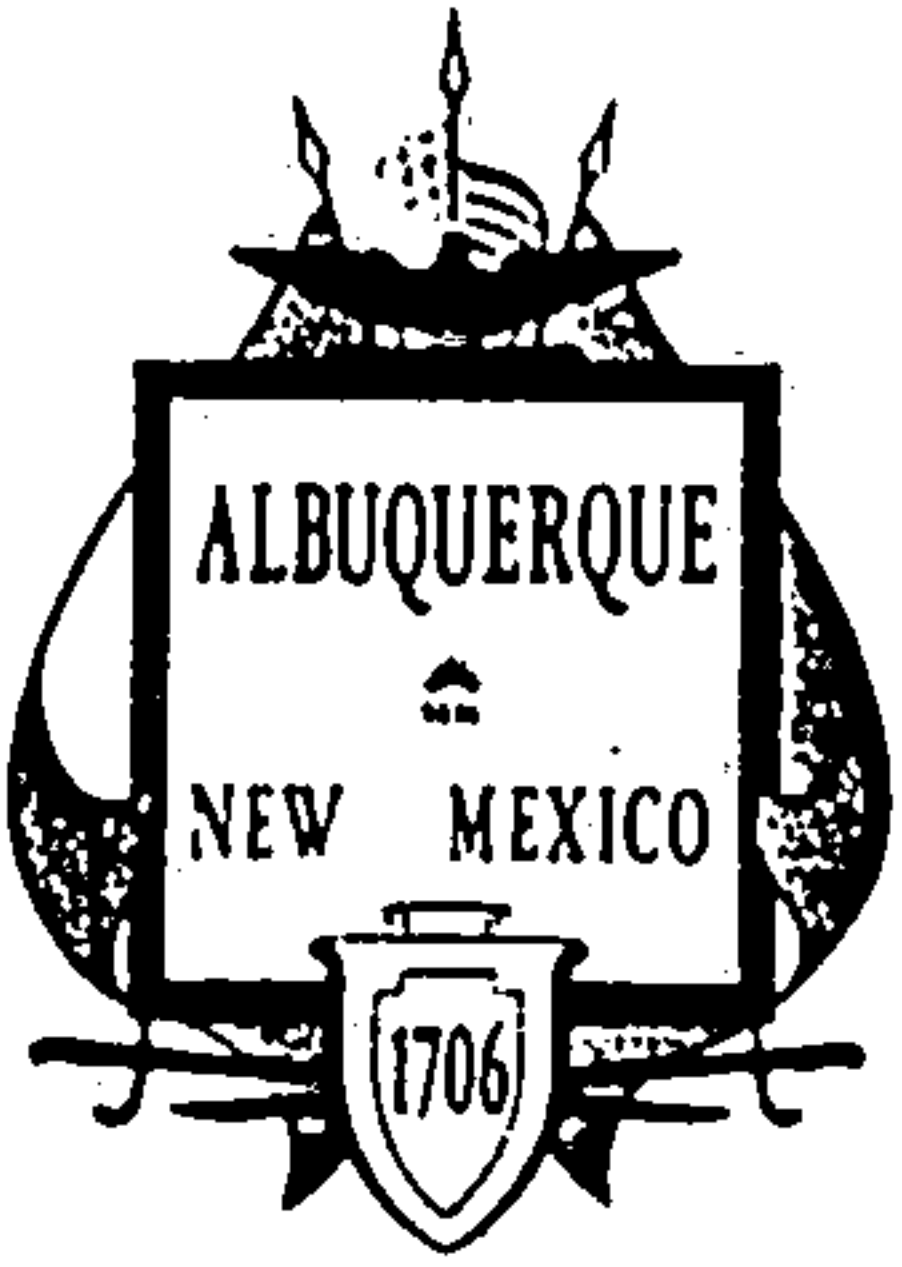
RAIN6= 1.730

COMPUTE NM HYD 110.20 - 1 .00100 1.20 .074 1.38218

1.667 1.881 PER IMP= 90.00

FINISH

Section III



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

January 7, 1993

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

RE: REVISED ENGINEER CERTIFICATION FOR ROMANO'S MACARONI GRILL
(J19-D55) CERTIFICATION STATEMENT DATED 1/6/93.

Dear Mr. Goodwin:

Based on the information provided on your January 6, 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
Engineering Assistant

BJM/d1/WPHYD/7429

xc: Alan Martinez
File

PUBLIC WORKS DEPARTMENT

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103



January 15, 1992

Mark Goodwin, P.E.
D. Mark Goodwin & Associates
Post Office Box 90606
Albuquerque, New Mexico 87199

RE: DRAINAGE PLAN FOR ROMANO'S MACARONI GRILL (J-19/D55)
ENGINEER'S STAMP DATED JANUARY 2, 1992

Dear Mr. Goodwin:

Based on the information provided on your submittal of January 2, 1992, the referenced site is approved for Site Development. Prior to Building Permit release, the following must be addressed.

1. Strongly advisable to locate the roof drains under the sidewalk and through the curb onto the asphalt parking area.
2. Please include the as-built information on the existing storm sewer line. You propose to remove and reconstruct the drop inlet. Where does the line come from and where does it eventually drain into?
3. Please include the capacity of the proposed Type "D" inlet.

If I can be of further assistance, please feel free to call me at 768-2650.

Cordially,

Bernie J. Montoya
Bernie J. Montoya, C.E.
Engineering Assistant

BJM/bsj
(WP+3141)

PUBLIC WORKS DEPARTMENT

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

ENGINEERING GROUP

Telephone (505) 768-2500

AN EQUAL OPPORTUNITY EMPLOYER



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

February 6, 1992

Mark Goodwin, P.E.
D. Mark Goodwin & Associates
Post Office Box 90606
Albuquerque, New Mexico 87199

RE: REVISED DRAINAGE PLAN FOR ROMANO'S MACARONI GRILL
(J-19/D55) REVISION DATED JANUARY 20, 1992

Dear Mr. Goodwin:

Based on the information provided on your submittal of February 3, 1992, the above referenced plan is approved for Building Permit.

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

Prior to Certificate of Occupancy release, Engineer's Certification per the DPM Checklist will be required.

If I can be of further assistance, please feel free to call me at 768-2650.

Cordially,

Bernie J. Montoya, C.E.
Engineering Assistant

xc: Alan Martinez

BJM/bsj
(WP+3141)

PUBLIC WORKS DEPARTMENT

DRAINAGE INFORMATION SHEET

PROJECT TITLE: Romano's Macaroni Grill ZONE ATLAS/DRNG. FILE #: J-19/D55
LEGAL DESCRIPTION: Portion Tract A - Winrock Center Addition
CITY ADDRESS: Louisiana & I-40
ENGINEERING FIRM: D. Mark Goodwin & Assoc. P.A. CONTACT: Mark Goodwin, P.E.
ADDRESS: PO Box 90606 87199 PHONE: 828-2200
OWNER: Chili's Inc. CONTACT: Ronald Bohannon
ADDRESS: 4600 Montgomery Blvd NE PHONE: 883-7592
ARCHITECT: Kastendieck-Steffey CONTACT: N/A
ADDRESS: Houston, TX PHONE: (713) 623-6373
SURVEYOR: D. Mark Goodwin & Assoc. P.A. CONTACT: Richard Borgel, L.S.
ADDRESS: PO Box 90606 87199 PHONE: 828-2200
CONTRACTOR: N/A CONTACT: _____
ADDRESS: _____ PHONE: _____

PRE-DESIGN MEETING

☒ YES
☐ 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 CONTROL PLAN
☐ ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL SOUGHT:

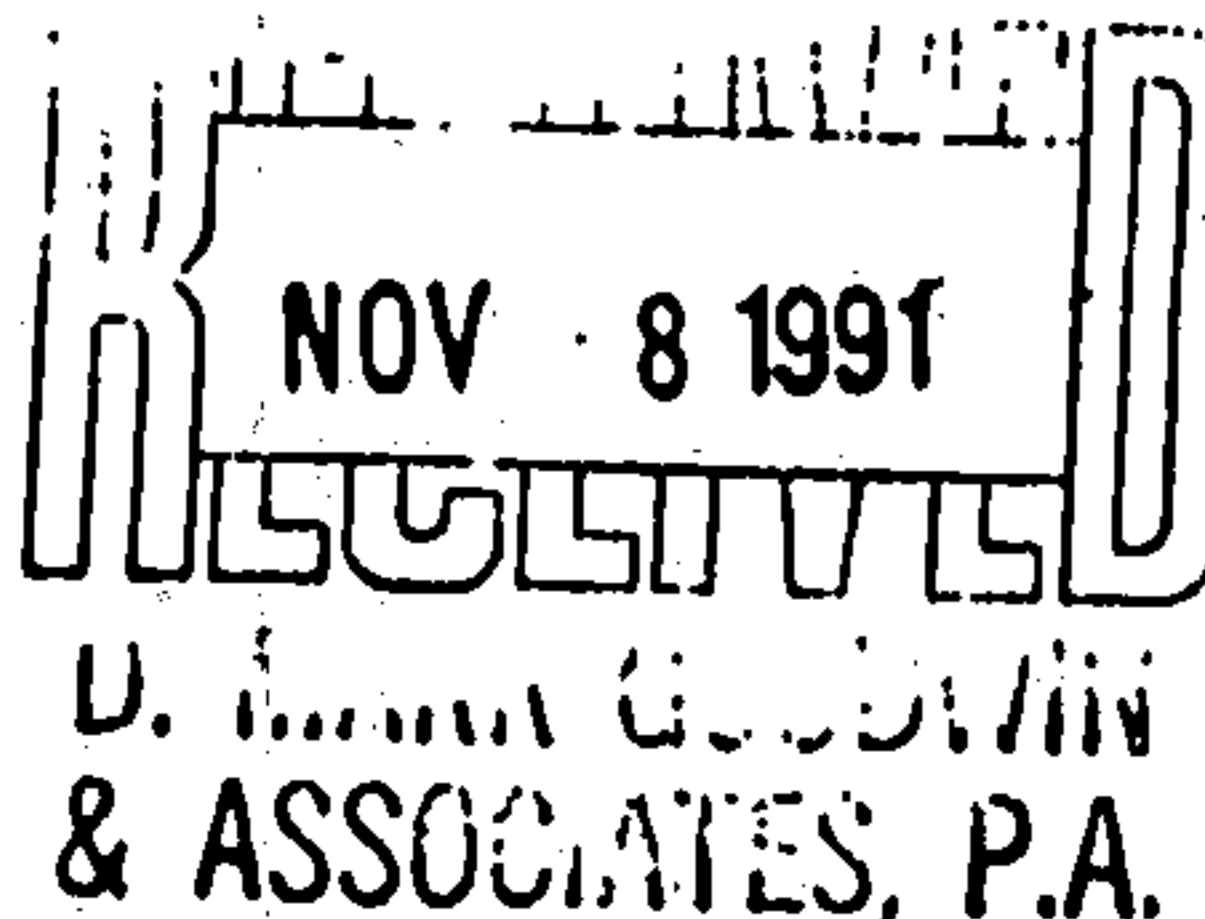
☐ SKETCH PLAT APPROVAL
☐ PRELIMINARY PLAT APPROVAL
☒ SITE DEVELOPMENT PLAN APPROVAL
☐ FINAL PLAT APPROVAL
☒ BUILDING PERMIT APPROVAL
☐ FOUNDATION PERMIT APPROVAL
☐ CERTIFICATE OF OCCUPANCY APPROVAL
☐ ROUGH GRADING PERMIT APPROVAL
☐ GRADING/PAVING PERMIT APPROVAL
☐ OTHER _____ SPECIFY

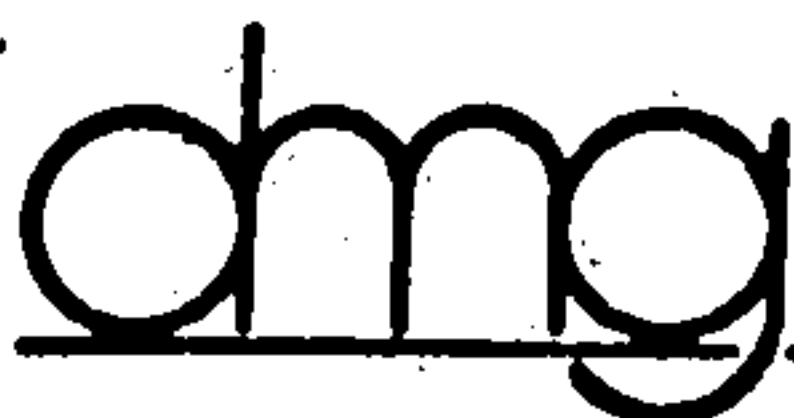
DATE SUBMITTED: 1/2/92

BY: Mark Goodwin

Mark Goodwin, P.E.

SN 910034
1016001119





D. Mark Goodwin & Associates, P.A.
Consulting Engineers and Surveyors

JOB Romanos

SUBJECT Drainage

JOB NO. _____

SHEET 1 OF 3

BY MG JAN

DATE 12/31/91

CHECKED _____

DATE _____

There are 2 existing drainage areas: 1 developed & 1 undeveloped. There will be 2 new drainage areas: both developed.

Drainage Area No. 1 - undeveloped

$$Area = 0.64 \text{ Ac.}$$

$$P(100-6) = 2.35 \text{ in}$$

$$T_c = 10 \text{ min.}$$

$$I(100-6) = 4.97 \text{ in/hr.}$$

Composite "C"

Paving	.95	.19	.18
undeveloped	.40	.45	.18
		<u>.64</u>	<u>.36</u>

$$\text{Composite } C = 0.56$$

$$Q(100-6) = 1.78 \text{ cfs}$$

$$\text{Vol. (100-6) per SCS} = 2556 \text{ Cu. Ft.}$$

Drainage Area No. 2 - undeveloped

$$Area = 0.96 \text{ Ac.}$$

$$P(100-6) = 2.35 \text{ in}$$

$$T_c = 10 \text{ min.}$$

$$I(100-6) = 4.97 \text{ in/hr.}$$



D. Mark Goodwin & Associates, P.A.
Consulting Engineers and Surveyors

JOB Romano's
SUBJECT Drainage
JOB NO. _____ SHEET 2 OF 3
BY MG DATE 12/31/91
CHECKED _____ DATE _____

Composite "C"

Roof	.90	.06	.05
Paving	.95	.84	.80
Landscaping	.25	.06	.02
		<u>0.96</u>	<u>.87</u>

Composite $C = 0.90$

$Q(100-6) = 4.30$ cfs

Vol. = 4879 CU. Ft.

Drainage Area No. 1 - Developed

Area = 0.64 Ac.

$P(100-6) = 2.35$ in

$T_c = 10$ min.

$I(100-6) = 4.97$ in/hr

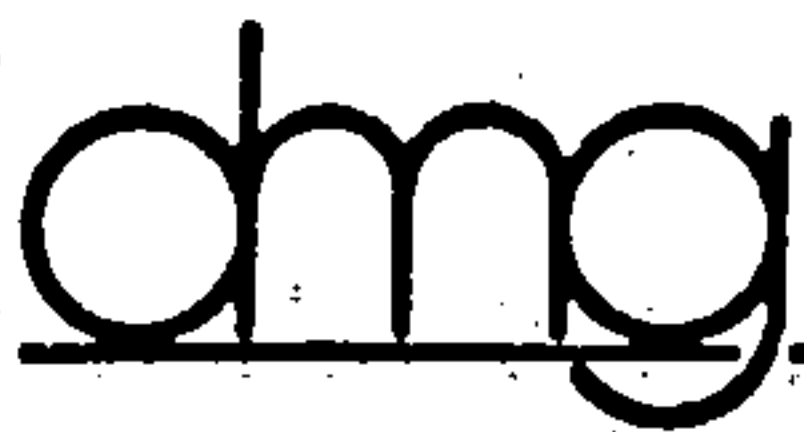
Composite "C"

Roof	.90	.09	.08
Paving	.95	.47	.47
Landscaped	.25	.06	.02
		<u>.64</u>	<u>.57</u>

Composite $C = 0.87$

$Q(100-6) = 2.83$

Vol. = 3136 CU. Ft.



D. Mark Goodwin & Associates, P.A.
Consulting Engineers and Surveyors

JOB Romanos
SUBJECT Drainage
JOB NO. _____ SHEET 3 OF 3
BY MG DATE 12/31/91
CHECKED _____ DATE _____

Drainage Area 2 - Developed

$$Area = 0.96 \text{ Ac}$$

$$P(100-6) = 2.35 \text{ in}$$

$$T_c = 10 \text{ min}$$

$$I(100-6) = 4.97 \text{ in/hr}$$

Composite "C"

Roof	.07	.90	.08
Paving	.72	.95	.68
Landscaped	.15	.25	.04
	<u>.96</u>		<u>.80</u>

$$\text{Composite "C"} = 0.83$$

$$Q(100-6) = 3.96 \text{ cfs}$$

$$\text{Vol.} = 4356 \text{ cu. ft.}$$

Size Channel & sidewalk culverts for $Q = 4 \text{ cfs}$

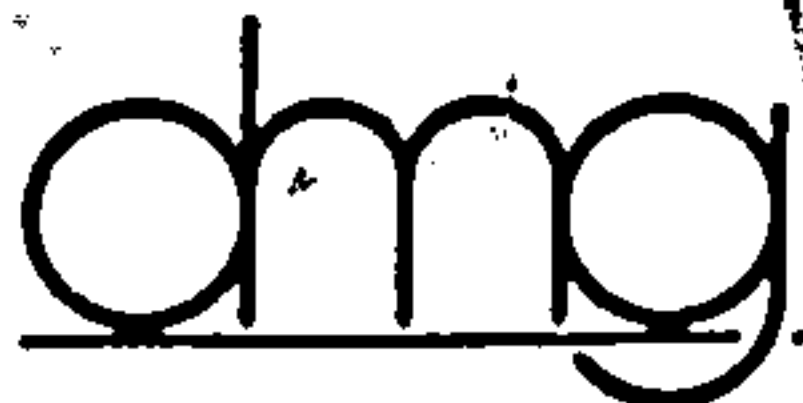
$$Q = C L H^{3/2}$$

$$C = 2.9$$

$$H = 0.5$$

$$Q = 4$$

$$L = \frac{Q}{C H^{3/2}} = 3.90' \text{ use } 2-24' \text{ culverts}$$



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

FEB 3 1992

February 3, 1992

Mr. Bernie Montoya
Hydrology Department
City of Albuquerque
PO Box 1293
Albuquerque, NM 87103

Re: Romano's Macaroni Grill (J-19/D55)

Dear Mr. Montoya:

In response to your letter of January 15, 1992, we offer the following:

1. We agree to the placement of roof drains through the face of curb. The Architect's final plans will indicate such placement.
2. As-built information for the storm drain does not exist. The system is privately owned by Winrock and discharges to the I-40 channel in several locations via 30-inch outlets. Most of the manholes have been paved over in the past 25 years. The inlet we are modifying is at the upstream end of the system.
3. We have included the Capacity Calculation you requested for the inlet. As you can see there is sufficient capacity.

We appreciate your concerns and hope that this response resolves them. Call us if you should require anything else.

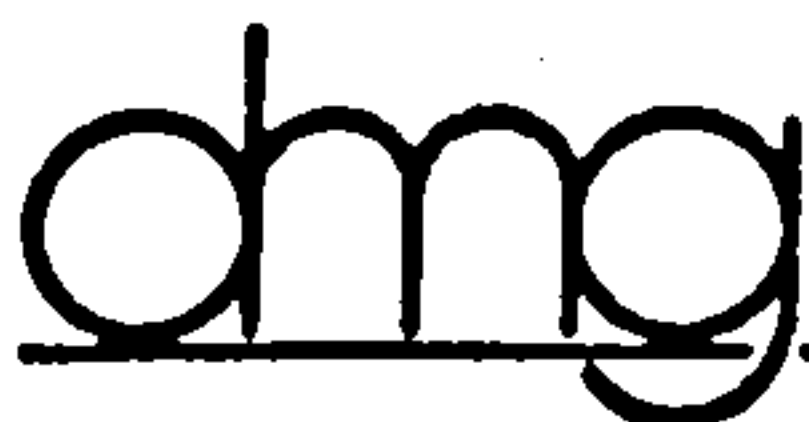
Sincerely,

D. MARK GOODWIN AND ASSOCIATES, P.A.


Mark Goodwin, P.E.

DMG:kmj

Enc



D. Mark Goodwin & Associates, P.A.
Consulting Engineers and Surveyors

FEB 3 1992

JOB Romano's
SUBJECT Drainage
JOB NO. _____ SHEET 1 OF 1
BY MG DATE 1/17/92
CHECKED _____ DATE _____

Need to determine capacity of Proposed
Type "D" inlet. we have a sump condition

$$\Rightarrow Q = 5.37 A H^{1/2}$$

$$\text{Area } A = 4.39 \text{ sq. ft.}$$

$$H = 1.90'$$

$$Q_{\text{MAX}} = 5.37 (4.39)(1.90)^{1/2} = 32 \text{ cfs} >> 3 \text{ cfs}$$

$\Rightarrow$ Grate is more than adequate