PUBLIC WORKS/HYDROLOGY

C22/D22

0000 0000 2048

C22/D22

25×10 32×10

0000 0000 2044

TMS & Associates, Inc.
Engineers • Architects • Surveyors
- An Indian Owned Economic Enterprise -

PROJECT MEMO

To: Gilbert Aldaz, P.E.
From: Philip W. Clark, P.E. 9/15/92
RE: Ken Hightower - Lot 20, Block 14, Tr.2, Unit 1, North Albuquerque Acres

Date: 9-15-92

Please find the following calculations which quantify the magnitude of potential street flows, which could be conveyed down Anaheim during the 100-year event towards client's Lot 20.

Please note that the dip-section upstream on Anaheim (associated w/the North Domingo Baca floodplain) does exist, and therefore intercepts all street flows upstream of that point. Also, note that the following calculations are conservative, in that the southside "bar-ditch" flows are included, in the case these property owners and/or the County fails to maintain the Project Design Swale.

Field crews from TMS & Associates, Inc. returned to the site, yesterday, to re-confirm our as-built of last October, since final landscaping improvements are in-place now. Minor revisions to the grading are hi-lighted on the enclosed as-built drawing, for your review. We found that the overall approved drainage concept is intact. The backslope of the "bar-ditch" is in a compacted and stable condition, has been vegetated with grass, and a well built, pressure-treated timber retaining wall has been built along the frontage of the property in question.

The following calculations indicate that the northside "bar-ditch" has sufficient capacity, and should the culvert be obstructed, the flows would overtop the driveway, and be conveyed in the north direction around the residence towards the main portion of N. Domingo Baca arroyo, via the sideyard swale as originally designed and currently in-place.

The property owner needs to be aware that maintenance of these improvements are his responsibilty, including the Project Design Swale, and the 18" culvert must be maintained free of silt and debris.

SEP 15
HYDROLOGY DIVISION

5905 Marble NE, Suite 3 Albuquerque, New Mexico 87110 (505) 262-1755 FAX (505) 262-1757

25×10 32×10

0000 0000 2050

DRAINAGE INFORMATION SHEET Attn: Gilbert Aldaz

PROJECT TITLE: High Tower ZONE ATLAS/DRNG. FILE #: C-22/D-22

DRB #: EPC #: WORK ORDER #:

LEGAL DESCRIPTION: LOT 20, Bl. 14, Tr 2, Unit 1 N.A.A.

CITY ADDRESS: 11301 Anaheim NE

ENGINEERING FIRM: TMS & Assoc CONTACT: Phil Clark

ADDRESS: 5905 Marble, N.E. 87110 PHONE: 262-1755

OWNER: CONTACT:

ADDRESS: PHONE:

ARCHITECT: CONTACT:

ADDRESS: PHONE:

SURVEYOR: CONTACT:

ADDRESS: PHONE:

CONTRACTOR: Ken Hightower Constr. ~~CONTACT~~: Ultima Homes, Inc.

ADDRESS: 11108 Country Club, N.E. 87111 PHONE: 298-3639

TYPE OF SUBMITTAL:

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

PRE-DESIGN MEETING:

___ YES
___ NO
___ COPY PROVIDED

RECEIVED SEP 15 1992 HYDROLOGY DIVISION

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
___ FOUNDATION PERMIT APPROVAL
___ BUILDING PERMIT APPROVAL
X CERTIFICATE OF OCCUPANCY APPROVAL
___ GRADING PERMIT APPROVAL
___ PAVING PERMIT APPROVAL
___ S.A.D. DRAINAGE REPORT
___ DRAINAGE REQUIREMENTS
___ OTHER _____ (SPECIFY)

DATE SUBMITTED: 9/15/92

BY: Phil W. Clark

25×10 32×10

TMS & Associates, Inc.
ENGINEERS ARCHITECTS SURVEYORS
5905 MARBLE, N.E. SUITE 3
ALBUQUERQUE, NEW MEXICO 87110
(505) 262-1755 FAX (505) 262-1757

9/15/92
TWC

LOT 20, Bl. 14, TR. 2, Unit 1, N.A.A.

Det. Street Flows on Anaheim

- per Approved grading Plan for lot 20, 2.44 cfs is generated per 0.89 acres of developed lot. Assuming all upstream property will be developed.... $t_c = 10^{min}$

upstream basin Area = 7.2 ac, see FEMA attached

$7.2 \times 2.44 = \underline{17.6 \text{ cfs}}$, Q_{100} in total R.O.W.

- Check Capacity of Project Design Swale - per Mannings

$n = 0.03$ (earthen graded)

$S = 4\%$

@ 2' depth, Q(cap) = 115 cfs >>> 17.6 ok

@ 1.5' depth, Q(cap) = 72 cfs >>> 17.6 ok

Solve for actual depth during 100-year/6-hr. storm

$d_{100} = 0.93'$ @ $Q_{100} = 17.6$ cfs

SEP 15
HYDROLOGY DIVISION

25×10 32×10

SIGNAL
AVENUE
WILSHIRE
AVENUE
WING DIKES
20
AVENUE
AVENUE
1" = 500'
N
SOUTH DOMINGO
BACA DAM
FEMA PANEL 11
LOT 20, BL. 14
TR. 2, UNIT 1, N.A.A.

0000 0000 2053

BOARD OF COUNTY COMMISSIONERS
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DISTRICT 5
JUAN R. VIGIL, COUNTY MANAGER

County of Bernalillo

State of New Mexico

ONE CIVIC PLAZA N.W.
ALBUQUERQUE, NEW MEXICO 87102

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THOMAS J. "HESCALL, PROBATE JUDGE

December 10, 1991

Phil Clark, P.E.
Technical Management Services Co.
5905 Marble, NE
Albuquerque, New Mexico 87110

RE: DRAINAGE PLAN FOR HIGHTOWER AT LOT 20, BLOCK 14, TRACT 2, UNIT 1, NORTH ALBUQUERQUE ACRES, RECEIVED DECEMBER 3, 1991 FOR CERTIFICATE OF OCCUPANCY RELEASE (C-22/~~D17~~ D22) BP91-386

Dear Mr. Clark:

Based on the changes made on the as-built plan, I am unable to provide approval at this time. The main concerns with the as-built plan is that the building finish floor was built 8 inches lower than the plan for building permit release. The other concern is that a wall was built within the potential erosion setback limits, which was also not shown on the plan for building permit.

In order for this department to approve Final Inspection release, the following items will need to be addressed:

1. Add another signature block for AMAFCA and County Public Works on the as-built plan and secure their signature.

2. Due to the building pad being built 8 inches lower, we are concerned about street flooding impacting the site. The county will need a Hold Harmless Agreement which states that the property owner relieves the County and AMAFCA from all liabilities if street flooding impacts the site.

3. The block wall built around the structure was probably built in the erosion setback limits of the arroyo. The county will need a Hold Harmless Agreement which states that the property owner relieves the County and AMAFCA from all liabilities if the wall should be damaged by the arroyo.

25×10 32×10

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These Hold Harmless Agreements will need to be recorded with the County Clerks Office.

If you should have any questions, please do not hesitate to call me at 768-2650.

Cordially,

Gilbert Aldaz, P.E. & P.S.
County Floodplain Administrator

xc: Clifford E. Anderson, AMAFCA
Bob Fogelsong, Bernalillo County
Tom Burlison, County Building Dept.
Ken Hightower, Contractor

GA
(WP+2752)

25×10 32×10

0000 0000 2055

DRAINAGE INFORMATION SHEET Attn: Gilbert Aldaz

PROJECT TITLE: Hightower Drainage ZONE ATLAS/DRNG. FILE #: C-22/D22

DRB #: N/A EPC #: N/A WORK ORDER #: N/A

LEGAL DESCRIPTION: Lot 20, Bl. 14, Tr. 2, Unit 1, North Albuq. Acres

CITY ADDRESS: Anaheim N.E. / Just east of Browning

ENGINEERING FIRM: Tech. Mngment Services Co. CONTACT: Phil Clark

ADDRESS: 5905 Marble N.E. - Albuq. 87110 PHONE: 262-1755

OWNER: Ultima Homes, Inc. CONTACT: Ken Hightower

ADDRESS: 11108 Country Club, NE 87111 PHONE: 298-3639

ARCHITECT: / (owner) CONTACT:

ADDRESS: PHONE:

SURVEYOR: Tech. Mgm't Services Co. CONTACT: Phil Turner

ADDRESS: same as above PHONE: 262-1755

CONTRACTOR: (owner) CONTACT:

ADDRESS: PHONE:

TYPE OF SUBMITTAL:

✓ DRAINAGE REPORT } 3 prints
✓ DRAINAGE PLAN
___ CONCEPTUAL GRADING & DRAINAGE PLAN
___ GRADING PLAN
___ EROSION CONTROL PLAN
___ ENGINEER'S CERTIFICATION
___ OTHER

JUL 15 1991
HYDROLOGY DIVISION

PRE-DESIGN MEETING:

✓ YES
___ NO
N/A COPY PROVIDED [never rec'd from Hydrology]

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
___ FOUNDATION PERMIT APPROVAL
✓ BUILDING PERMIT APPROVAL
X CERTIFICATE OF OCCUPANCY APPROVAL
___ GRADING PERMIT APPROVAL
___ PAVING PERMIT APPROVAL
___ S.A.D. DRAINAGE REPORT
___ DRAINAGE REQUIREMENTS
✓ OTHER ① Grant of Flood Plain Easement (SPECIFY)
② off-site Hydrol. Calcs.

WP #2752
BP 91-386

DATE SUBMITTED: ~~7-15-91~~ 03-91 ~~7/19/91~~

BY:

25× 32×

0000 0000 2056

BOARD OF COUNTY COMMISSIONERS
PATRICK J. BACA, CHAIRMAN DISTRICT 1
PATRICIA "PAT" CASSIDY, VICE CHAIR DISTRICT 4
ALBERT "AL" VALDEZ, MEMBER DISTRICT 2
EUGENE M. GILBERT, MEMBER DISTRICT 3
JACQUELYN SCHAEFER, MEMBER DISTRICT 5
ALEX ABEYTA, JR., COUNTY MANAGER

County of Bernalillo

State of New Mexico
ONE CIVIC PLAZA N.W.
ALBUQUERQUE, NEW MEXICO 87102

RAY GALLAGHER, SHERIFF
PATRICK J. PADILLA, TREASURER
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THOMAS J. MESCALL, PROBATE JUDGE

July 22, 1991

Phil Clark, P.E.
Technical Management Services Co.
5905 Marble, NE
Albuquerque, New Mexico 87110

RE: DRAINAGE PLAN FOR HIGHTOWER AT LOT 20, BLOCK 14, (D22)
TRACT 2, UNIT 1, NORTH ALBUQUERQUE ACRES (C-22/~~D18~~)
ENGINEER'S STAMP DATED JUNE 13, 1991, BP91-386

Dear Mr. Clark:

Based on the information provided on the referenced submittal received July 15, 1991, it appears that the building pad is setback six feet for every 100cfs or fraction thereof from the 100-year floodplain. Since the setback complies with Section IV.1.A. of the "Drainage Plan Requirements for Building Permit Requests", your building permit request is approved.

Please be advised that prior to Final Inspection by the County Building Department, an Engineer's Certification must be submitted and approved by this office. If you should have any questions, please do not hesitate to call me at 768-2650.

Cordially,

Gilbert Aldaz

Gilbert Aldaz, P.E. & P.S.
County Floodplain Administrator

xc: Clifford E. Anderson, AMAFCA
Bob Fogelsong, Bernalillo County
Raymond Quintana, County Building Dept.
Ken Hightower, Contractor

GA
wp+2752

25×10 32×10

0000 0000 2057

July 15, 1991

Albuquerque
Metropolitan
Arroyo
Flood
Control
Authority
2600 PROSPECT N.E. · ALBUQUERQUE N.M. 87107
TELEPHONE (505) 884-2215

JUL 17 1991
HYDROLOGY DIVISION

Sheet 1 of 2

To: Gilbert Aldaz, City-County
Floodplain Administrator
c/o Public Works Dept
Hydrology Division
City of Albuquerque

From: Clifford E. Anderson, PE & LS
Drainage Engineer, AMAFCA

Re: Grading and Drainage Plan for Lot 20, Block 19, Tract 2, Unit 1, North Albuquerque Acres (C-22)

AMAFCA has reviewed the above referenced Grading and Drainage Plan and our review indicates that it is in conformance with AMAFCA's Drainage Policy (Resolution No. 1980-15). AMAFCA has also received an executed Flood Plain Easement for the area in the 100-year flood zone.

Of particular importance to AMAFCA is erosion adjacent to the 100-year flood area and the potential damage to the proposed residence. Table 3 of the FEMA Flood Insurance Study (Community No. 350002, September 15, 1983) indicates that the North Domingo Baca Arroyo has a flow of approximately 1020 cfs in this area. Without a Prudent Line

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Study, AMAFCA is willing to accept the erosion setback from Section IV. 2. A of the "Drainage Plan Requirements for Building Permit Requests Affected by 100-year Floodplains" (dated February 28, 1991). This section provides for an erosion setback of "six feet for each 100 cfs, or fraction thereof that the arroyo carries during a 100-year storm". It appears that the plan meets this criteria. Our preference is for a Prudent Line Study but we understand that such a study may not be practical in this case, and that the design engineer, Mr. Phillip W. Clark, may wish to utilize the setback formula in place of a more detailed study.

Based on the above findings, AMAFCA approves the Grading and Drainage Plan for Lot 20, Block 19, Tract 2, Unit 1, North Albuquerque Acres.

copy to:
Bob Foglesong, Bernalillo Co. Surface Water Hydrologist
Phillip W. Clark, TMS Co, 5905 Marble NE, Suite 3, Albq. 87110

25×10 32×10

0000 0000 2059

DRAINAGE INFORMATION SHEET Attn: Gilbert Aldaz

PROJECT TITLE: Hightower Drainage ZONE ATLAS/DRNG. FILE #: C-22 / D 22

DRB #: N/A EPC #: N/A WORK ORDER #: N/A

LEGAL DESCRIPTION: Lot 20, Bl. 14, Tr. 2, Unit 1, North Albuq. Acres

CITY ADDRESS: Anaheim N.E. / Just east of Browning

ENGINEERING FIRM: Tech. Mngment Services Co. CONTACT: Phil Clark

ADDRESS: 5905 Marble N.E. - Albuq. 87110 PHONE: 262-1755

OWNER: Ultima Homes, Inc. CONTACT: Ken Hightower

ADDRESS: 11108 Country Club, NE 87111 PHONE: 298-3639

ARCHITECT: / (owner) CONTACT:

ADDRESS: PHONE:

SURVEYOR: Tech. Mgm't Services Co. CONTACT: Phil Turner

ADDRESS: Same as above PHONE: 262-1755

CONTRACTOR: (owner) CONTACT:

ADDRESS: PHONE:

RECEIVED JUL 15 1991 HYDROLOGY DIVISION

TYPE OF SUBMITTAL:

✓ DRAINAGE REPORT } 3 prints
✓ DRAINAGE PLAN
___ CONCEPTUAL GRADING & DRAINAGE PLAN
___ GRADING PLAN
___ EROSION CONTROL PLAN
___ ENGINEER'S CERTIFICATION
___ OTHER

PRE-DESIGN MEETING:

✓ YES
___ NO
N/A COPY PROVIDED [never recd from Hydrology]

up 12752
BP 91-386

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
___ FOUNDATION PERMIT APPROVAL
X BUILDING PERMIT APPROVAL
___ CERTIFICATE OF OCCUPANCY APPROVAL
___ GRADING PERMIT APPROVAL
___ PAVING PERMIT APPROVAL
___ S.A.D. DRAINAGE REPORT
___ DRAINAGE REQUIREMENTS
X OTHER ① Grant of Flood Plain Easement (SPECIFY)
② off-site Hydrol. Calcs

DATE SUBMITTED: 7-15-91 ~~6/14/91~~

BY: [signature]

25×10 32×10

0000 0000 2060

JUL 12 1991

BOARD OF COUNTY COMMISSIONERS
PATRICK J. BACA, CHAIRMAN DISTRICT 1
PATRICIA "PAT" CASSIDY, VICE CHAIR DISTRICT 4
ALBERT "AL" VALDEZ, MEMBER DISTRICT 2
EUGENE M. GILBERT, MEMBER DISTRICT 3
JACQUELYN SCHAEFER, MEMBER DISTRICT 5
ALEX ABEYTA, JR., COUNTY MANAGER

County of Bernalillo

State of New Mexico

2400 BROADWAY S.E.
ALBUQUERQUE, NEW MEXICO 87102

RAY GALLAGHER, SHERIFF
PATRICK J. PADILLA, TREASURER
GLADYS M. DAVIS, CLERK
MARK J. CARRILLO, ASSESSOR
THOMAS J. MESCALL, PROBATE JUDGE

BERNALILLO COUNTY PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
MEMORANDUM

TO: Deborah Seligman, Assistant County Attorney

FROM: Robert Foglesong, County Surface Water Hydrologist

DATE: July 8, 1991

SUBJECT: Drainage Requirements for Development Adjacent to AO and AH Zones

On February 28, 1991, the County Floodplain Administrator, in conjunction with the County Public Works Department and the Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA), issued a checklist for drainage plan requirements.(copy attached)

Since then, a few developers have questioned whether Section IV. "EROSION LIMITS", of the checklist, constitutes a "taking". The County Floodplain Administrator requested the City Legal Department to provide an opinion. Attached for your review is the City's response to the Floodplain Administrators inquiry.

We would like to receive your opinion. Attached for your review and information is a copy of the County Flood Damage Prevention Ordinance, No. 88-46 and the County Storm Drainage Ordinance, No. 90-6.

We look forward to receiving your comments. If you have any questions, please call.

Thank you.

RF:srf

cc: John Ramsey, Public Works Director
Boleslo Romero, Engineering Division Manager
Gilbert Aldaz, County Floodplain Administrator, COA
Clifford E. Anderson, Drainage Engineer, AMAFCA

25×10 32×10

0000 0000 2061

DRAINAGE INFORMATION SHEET

PROJECT TITLE: Hightower Drainage ZONE ATLAS/DRNG. FILE #: C-22/D22

DRB #: N/A EPC #: N/A WORK ORDER #: N/A

LEGAL DESCRIPTION: Lot 20, Bl. 14, Tr. 2, Unit 1, North Albuq. Acres

CITY ADDRESS: Anaheim N.E. / Just east of Browning

ENGINEERING FIRM: Tech. Mngment Services Co. CONTACT: Phil Clark

ADDRESS: 5905 Marble N.E. - Albuq. 87110 PHONE: 262-1755

OWNER: Ultima Homes, Inc. CONTACT: Ken Hightower

ADDRESS: PHONE:

ARCHITECT: / (owner) CONTACT:

ADDRESS: PHONE:

SURVEYOR: Tech. Mgm't Services Co. CONTACT: Phil Turner

ADDRESS: same as above PHONE: 262-1755

CONTRACTOR: (owner) CONTACT:

ADDRESS: PHONE:

TYPE OF SUBMITTAL:

✓ DRAINAGE REPORT
✓ DRAINAGE PLAN
___ CONCEPTUAL GRADING & DRAINAGE PLAN
___ GRADING PLAN
___ EROSION CONTROL PLAN
___ ENGINEER'S CERTIFICATION
___ OTHER

PRE-DESIGN MEETING:

✓ YES
___ 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
___ FOUNDATION PERMIT APPROVAL
X BUILDING PERMIT APPROVAL
___ CERTIFICATE OF OCCUPANCY APPROVAL
___ GRADING PERMIT APPROVAL
___ PAVING PERMIT APPROVAL
___ S.A.D. DRAINAGE REPORT
___ DRAINAGE REQUIREMENTS
X OTHER Grant of Flood Plain Easement (SPECIFY)

RECEIVED JUL 2 1991 HYDROLOGY DIVISION

DATE SUBMITTED: 6/14/91 Resub. 7/2/91 RXC

BY: [signature]

25×10 32×10

0000 0000 2062

Technical Management Services Co.

Professional Engineering and Surveying Services

Indian Owned Economic Enterprise

July 2, 1991

JUL 2 1991

Mr. Gilbert Aldaz, P.E. & L.S.
County Floodplain Administrator
County of Bernalillo
One Civic Plaza N.W.
Albuquerque, New Mexico 87102

Re: Hightower Drainage Plan - Lot 20, Bl. 14, TR. 2, Unit 1, North Albuquerque Acres C-22/D12; TMS Project No. 91-127

Mr. Aldaz:

Please find the resubmittal of subject drainage plan, addressing your comments dated 7/1/91.

1. Septic System area delineated on plan.
2. Roof area revised to 3,840 SF. Merely heated area was initially used. Calcs revised accordingly.
3. All native vegetation . . . no liner.
4. Access permit note revised.
5. Added note per your advisory comment.
6. Moved swale per your request.
7. Removed note pertaining to discussions with Bob Foglesong regarding general drainage concept acceptable in North Albuquerque Acres.
8. Please find off-site calcs./basin previously (originally) submitted to your office on June 14.
9. Per telecon with Hoss Foster, County Inspector the two (2) 18-inch culverts are acceptable.

Should you have questions, please feel free to call me.

Sincerely,

Philip W. Clark, P.E.
Partner
Technical Management Services Co.

5905 Marble NE Suite 1 & 2 Albuquerque, New Mexico 87110 (505) 262-1755 Fax (505) 262-1757

25×10 32×10

0000 0000 2063

→ HIGHTOWER PROPERTY
OFF-SITE DRAINAGE CALCS.
for lot 20, Bl. 14, Tr. 2, Unit 1, N.A.A.

6/12/91
RJC

- OFFSITE BASIN CONTRIB. TO ON-SITE FEMA FLOOD PLAIN - see Attached

Area = 0.81 + 0.52 = 1.33 AC., USE 1.3 AC.
Flows presently are undeveloped
E, excess precipitation = 0.66 in [0.27 in]
TREATMENT 'A' - undeveloped
PEAK DISCHARGE = 2.26 CFS/AC. [0.99]

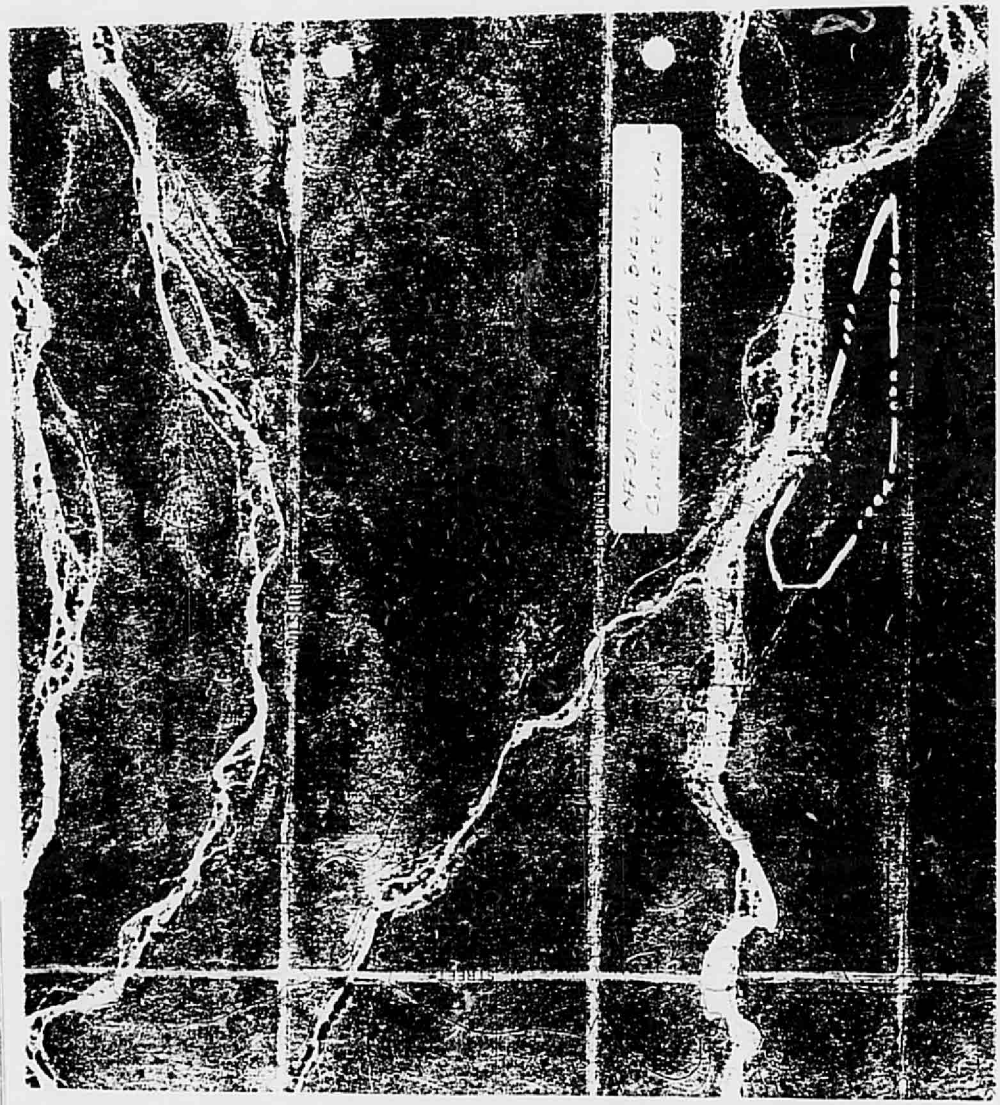
Q_{100} = 2.9 c.f.s.	Q_{10} = 1.3 c.f.s.
Vol_{100} = 3115 C.F.	Vol_{10} = 1274 C.F.

- Calc. velocities Entering Site - above arroyo
  Per Mannings & Trapez. ditch
  B = 7', SS = 4:1, S = 3%, n = 0.03
  ∴ $vel._{100-yr}$ = 2.4 fps @ d = 0.16', non-erosive
  Note: These flows are temporary until adjacent lot 21 is developed. Owner of lot 21 will be required to control its lot discharge.

Technical Management Services Co.
Professional Engineering and Surveying Services
Indian Tribal Economic Enterprise
1905 Marble NE Suite 3 Albuquerque, New Mexico 87110
(505) 262-1755 Fax (505) 262-1757

25×10 32×10

0000 0000 2069



0000 0000 2065

BOARD OF COUNTY COMMISSIONERS
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PATRICIA "PAT" CASSIDY, VICE CHAIR DISTRICT 4
ALBERT "AL" VALDEZ, MEMBER DISTRICT 2
EUGENE M. GILBERT, MEMBER DISTRICT 3
JACQUELYN SCHAEFER, MEMBER DISTRICT 5
ALEX ABEYTA, JR., COUNTY MANAGER

County of Bernalillo

State of New Mexico

ONE CIVIC PLAZA N.W.
ALBUQUERQUE, NEW MEXICO 87102

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PATRICK J. PADILLA, TREASURER
GLADYS M. DAVIS, CLERK
MARK J. CARRILLO, ASSESSOR
THOMAS J. MESCALL, PROBATE JUDGE

July 1, 1991

Note: It appears plan meets 6 requirements for 100 cfs

Phil Clark, P.E.
Technical Management Services Co.
5905 Marble, NE
Albuquerque, New Mexico 87110

RE: DRAINAGE PLAN FOR HIGHTOWER AT LOT 20, BLOCK 14
TRACT 2, UNIT 1, NORTH ALBUQUERQUE ACRES
RECEIVED JUNE 14, 1991 FOR BUILDING PERMIT (C-22/D22)

Dear Mr. Clark:

Based on the information provided on the referenced submittal received June 14, 1991, the following comments should be addressed prior to Building Permit Approval:

1. Show the location of the septic system on the plan.
2. The roof area appears to be larger than 3050 sf.
3. Show the areas proposed to be landscaped. Will the landscaping have a liner underneath? If so, then your treatment needs to be adjusted.
4. Please revise note 1. The ordinance that requires an access permit is No. 88-13.
5. Add a note that no walls or obstructions will be allowed in the flood plain easement.
6. Move swale to a minimum of 5 feet from property line.
7. Take the note off that makes reference to the County Hydrologist allowing free discharge from this site.
8. How did you derive the 2.9 cfs shown on the northeast corner of this site?

25×10 32×10

0000 0000 2066

9. Have you confirmed with the County Inspector that he will allow two 18 inch culverts at Anaheim?

Should you have any questions, please feel free to call me at 768-2650.

Cordially,

Gilbert Aldaz

Gilbert Aldaz, P.E. & P.S.
City/County Floodplain Administrator

xc: Bob Fogelsong, Bernalillo County
Clifford E. Anderson, AMAFCA

GA
WP+2752

25×10 32×10

0000 0000 2067

C22/~~D18~~ D22

To: Cliff Anderson
Bob Fogelsong

From: Gilbert Aldaz

Date: 6/25/91

Re: Please provide verbal comments by 6/20/91, sorry I did not get this to you sooner, I need to correct this with Barbara, Thanks.

25×10 32×10

0000 0000 2068

DRAINAGE INFORMATION SHEET Hn: Gilbert Aldaz

PROJECT TITLE: Hightower Drainage ZONE ATLAS/DRNG. FILE #: C-22 / D22

DRB #: N/A EPC #: N/A WORK ORDER #: N/A

LEGAL DESCRIPTION: Lot 20, Bl. 14, Tr. 2, Unit 1, North Albuq. Acres

CITY ADDRESS: Anaheim N.E. / Just east of Browning

ENGINEERING FIRM: Tech. Mngment Services Co. CONTACT: Phil Clark

ADDRESS: 5905 Marble N.E. - Albuq. 87110 PHONE: 262-1755

OWNER: Ultima Homes, Inc. CONTACT: Ken Hightower

ADDRESS: 11108 Country Club, NE 87111 PHONE: 298-3639

ARCHITECT: / (owner) CONTACT:

ADDRESS: PHONE:

SURVEYOR: Tech. Mgm't Services Co. CONTACT: Phil Turner

ADDRESS: Same as above PHONE: 262-1755

CONTRACTOR: (owner) CONTACT:

ADDRESS: PHONE:

TYPE OF SUBMITTAL:

✓ DRAINAGE REPORT } 3 prints
✓ DRAINAGE PLAN
___ CONCEPTUAL GRADING & DRAINAGE PLAN
___ GRADING PLAN
___ EROSION CONTROL PLAN
___ ENGINEER'S CERTIFICATION
___ OTHER

wp t2752

PRE-DESIGN MEETING:

✓ YES
___ NO
N/A COPY PROVIDED [never recd from Hydrology]

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
___ FOUNDATION PERMIT APPROVAL
X BUILDING PERMIT APPROVAL
___ CERTIFICATE OF OCCUPANCY APPROVAL
___ GRADING PERMIT APPROVAL
___ PAVING PERMIT APPROVAL
___ S.A.D. DRAINAGE REPORT
___ DRAINAGE REQUIREMENTS
X OTHER ① Grant of Flood Plain Easement (SPECIFY)
② off-site Hydrol. Calcs.

DATE SUBMITTED: 6/14/91

BY: [signature]

25×10 32×10

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→ HIGHTOWER PROPERTY
OFF-SITE DRAINAGE CALCS.
for lot 20, Bl. 14, Tr. 2, Unit 1, N.A.A.

6/10/91, RJC

- OFFSITE BASIN CONTRIB. TO ON-SITE FEMA FLOOD PLAIN - See Attached

Area = 0.81 + 0.52 = 1.33 AC; USE 1.3 AC.
Flows presently are undeveloped
E, excess precipitation = 0.6[illegible] in. [0.27 in]
TREATMENT 'A' - undeveloped
PEAK DISCHARGE = 2.26 CFS/AC. [0.99]

Q_{100} = 2.9 c.f.s.	Q_{10} = 1.3 c.f.s.
Vol_{100} = 3115 C.F.	Vol_{10} = 1274 C.F.

- Calc. velocities Entering Site - above arroyo
  Per Mannings & Trapez. ditch
  B = 7', SS = 4:1, S = 3%, n = 0.03
  ∴ vel_{100-yr} = 2.4 fps @ d = 0.16', non-erosive
  Note: these flows are temporary until adjacent lot 21 is developed. Owner of lot 21 will be required to control its lot discharge.

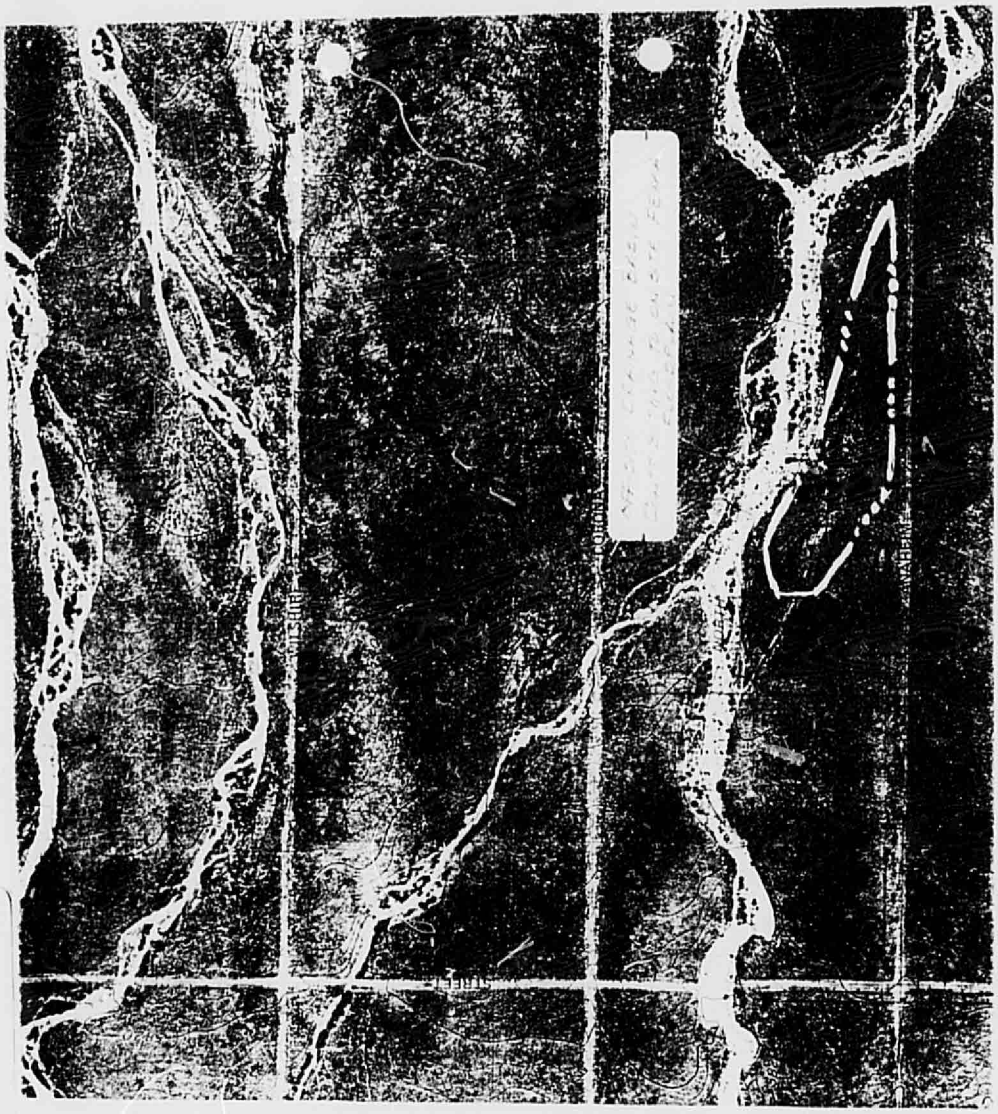
RECEIVED
JUN 14 1991
HYDROLOGY DIVISION

Technical Management Services Co.
Professional Engineering and Surveying Services
Indian Owned Economic Enterprise
1901 Marble NE Suite 1 Albuquerque, New Mexico 87110
(505) 262-1751 Fax (505) 262-1757

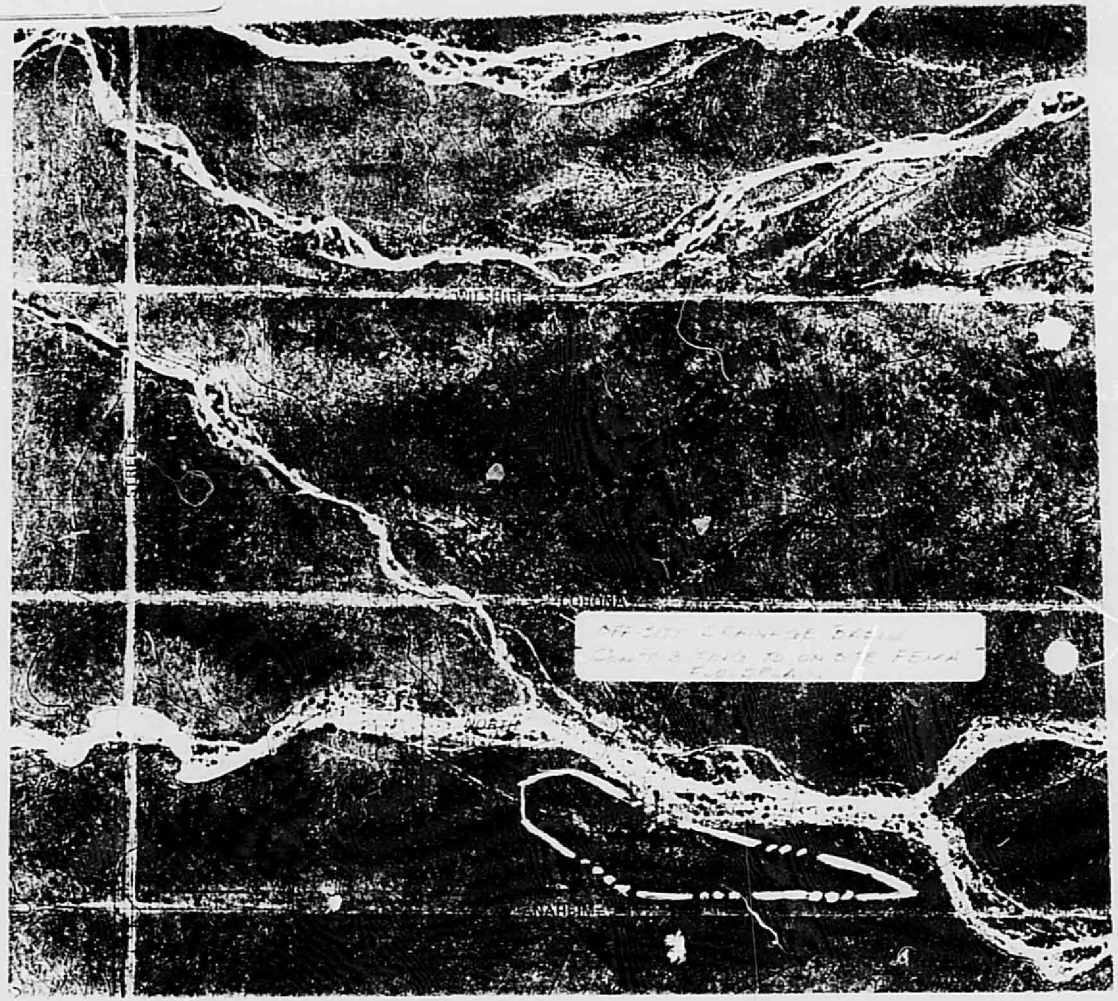
Sheet 1 of 2

25×10 32×10

0000 0000 2070



U.S.A. Topo
1"=200'
Sheet 2 of 2



C.O.A. Topo
1"=200'
Sheet 2 of 2

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BOARD OF COUNTY COMMISSIONERS
PATRICK J. BACA, CHAIRMAN
DISTRICT 1
JACQUELYN SCHAEFER, VICE CHAIR
DISTRICT 5
ALBERT "AL" VALDEZ, MEMBER
DISTRICT 2
EUGENE M. GILBERT, MEMBER
DISTRICT 3
PATRICIA "PAT" CASSIDY, MEMBER
DISTRICT 4
JUAN R. VIGIL, COUNTY MANAGER

County of Bernalillo

State of New Mexico

ONE CIVIC PLAZA, N.W.
ALBUQUERQUE, NEW MEXICO 87102
ADMINISTRATION (505) 768-4000
COMMISSION (505) 768-4217
FAX (505) 768-4320

RAY GALLAGHER, SHERIFF
PATRICK J. PADILLA, TREASURER
GLADYS M. DAVIS, CLERK
MARK J. CARRILLO, ASSESSOR
THOMAS J. MESCALL, PROBATE JUDGE

October 22, 1992

Phil Clark, P.E.
Technical Management Services Co.
5905 Marble NE
Albuquerque, New Mexico 87110

RE: DRAINAGE PLAN FOR HIGHTOWER AT LOT 20, BLOCK 14, TRACT 2, UNIT 1, NORTH ALBUQUERQUE ACRES, ENGINEER'S STAMP DATED OCTOBER 15, 1992 FOR CERTIFICATE OF OCCUPANCY RELEASE (C-22/D22) BP91-386.

Dear Mr. Clark:

Attached is the Hold Harmless agreement which needs to be signed and recorded by the property owner prior to Certification of Occupancy release. The agreement was a requirement per our previous letter dated December 10, 1992.

If you should have any questions, please do not hesitate to call me at 768-2650.

Cordially,

Gilbert Aldaz

Gilbert Aldaz, P.E. & P.S.
County Floodplain Administrator

12-28-92
Per Engineer's Submittal 12-15-92 The Engineer's state's offsite problems will not impact from streets will house, I with this condition will waive hold harmless agreement.

GA/WP+2752

xc: Clifford E. Anderson, AMAFCA
Bob Fogelsong, Bernalillo County
Tom Burrison, County Building Dept.
Ken Hightower, Contractor
file

25×10 32×10

0000 0000 2043

PLANS/PLATS ON FILE

FILE DESC: C22/D22

PLANS/PLATS 3

25×10 32×10

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