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

April 8, 1991

Tom Mann, P.E.
The Mann Company
811 Dallas Street, NE
Albuquerque, New Mexico 87110

RE: DRAINAGE PLAN FOR LOT 31, BLOCK A, NORTH ALBUQUERQUE ACRES, UNIT 1 (B-22/D8) BP90-792, ENGINEER'S STAMP DATED APRIL 8, 1991

Dear Mr. Mann:

It appears that the existing construction is in conformance with the approved plan based on visual observation of completed work. No detailed construction observation or testing was performed by this office, AMAFCA or Bernalillo County Public Works Department. Based on the information provided on the referenced submittal received March 28, 1991, the plan is approved for Engineer's Certification, meaning that the Building Permit Department may proceed to Final Inspection.

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

Cordially,

Gilbert Aldaz
Floodplain Administrator

xc: Clifford E. Anderson, AMAFCA
Bob Fogelsong, Bernalillo County
Tom Burlison, County Building Department
Skip Hines, Owner

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DRAINAGE INFORMATION SHEET

PROJECT TITLE: Lot 31 Blk A Unit 1 NAA ZONE ATLAS/DRNG. FILE #: B-22/D8

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

LEGAL DESCRIPTION: Lot 31 Blk A Unit 1 North Albuquerque Acres

CITY ADDRESS: 12425 Modesto NE

ENGINEERING FIRM: The Mann Company Inc CONTACT: Tom Mann

ADDRESS: 5312 Norean Dr NE PHONE: 883-7700

OWNER: Skip Hines CONTACT: Skip Hines

ADDRESS: 606 Dartmouth NE PHONE: 1-252-1144

ARCHITECT: Unknown CONTACT: _____

ADDRESS: _____ PHONE: _____

SURVEYOR: The Mann Company CONTACT: _____

ADDRESS: _____ PHONE: _____

CONTRACTOR: Skip Hines 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
___ BUILDING PERMIT APPROVAL
✓ CERTIFICATE OF OCCUPANCY APPROVAL
___ GRADING PERMIT APPROVAL
___ PAVING PERMIT APPROVAL
___ S.A.D. DRAINAGE REPORT
___ DRAINAGE REQUIREMENTS
___ OTHER _____ (SPECIFY)

RECEIVED
MAR 28 1991
HYDROLOGY DIVISION

DATE SUBMITTED: 3/28/91

BY: Tom Mann

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PWD 90-42

AGREEMENT TO CONSTRUCT

SUBDIVISION IMPROVEMENTS

PRIVATE INFRASTRUCTURE

THIS AGREEMENT is made this 7 day of January, 19 91, by and between the County of Bernalillo, New Mexico (hereinafter referred to as "County") and SHC General Contractor, his heirs, executors, administrators, successors, transferees, and assigns jointly and severally (hereinafter referred to as "Developer") and shall be in full force and effect through 1/7, 1992, except as otherwise provided below under TERMINATION.

WHEREAS, the Developer wishes to develop certain lands within the County of Bernalillo, State of New Mexico known as Modesto Lots (hereinafter referred to as the "Subdivision"); and

WHEREAS, the Developer has submitted and the County has approved a preliminary plat identified as N/A describing the Subdivision; and

WHEREAS, the County requires Developer to construct roadway and drainage improvements to County specifications in said subdivision as a prerequisite to approval of a Final Plat of the Subdivision; and

WHEREAS, the County wishes to secure and protect the purchasers of lots within the subdivision from the possibility of the Developer's failure to build satisfactory infrastructure improvements to serve such purchasers; and

WHEREAS, the County requires the execution of an Agreement to construct said public improvements, together with actual satisfactory construction or acceptable guarantees of construction as specified below, as a prerequisite to approval of a Final Plat of the Subdivision; and

WHEREAS, the Developer must obtain County approval of construction plans, specifications, and cost estimates for the improvements and upon County approval of such construction plans, specifications, and cost estimates the County is prepared to issue the Developer a Work Order permitting the commencement of construction activities upon execution of this Agreement and payment of any required fees, all as set forth and specified in Exhibit "A", which is attached hereto and incorporated herein as if fully set forth in this Agreement; and

WHEREAS, the County is willing to inspect or monitor the private inspection of the improvements during the course of their construction and accept said improvements upon their satisfactory completion, all as set forth and specified in Exhibit "B", which is attached hereto and incorporated herein as if fully set forth in this Agreement; and

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WHEREAS, the Developer financially guarantees the satisfactory completion of the infrastructure construction required herein and the payment of all labor and material costs and charges, all as set forth and specified in Exhibit "C", which is attached hereto and incorporated herein as if fully set forth in this Agreement;

NOW, THEREFORE, in consideration of the above, the County and the Developer hereby agree as follows:

1. The Developer shall, on or before the 1st day of June, 1991, complete to the satisfaction of the County the improvements required for the Subdivision as set forth, specified and referenced in Exhibit "A" attached hereto. The improvements which the Developer shall satisfactorily complete within the time limitation stated above are described and identified in Exhibit "D", which is attached hereto and incorporated herein as if fully set forth in this Agreement.

The time limitation stated above may be extended by the County Engineer for a period not to exceed twelve (12) months if the Developer shows adequate reasons for said extension.

2. After execution of this Agreement, payment of all fees as specified in Exhibit "A" attached hereto, and, if applicable, delivery of the financial guarantee specified in Exhibit "C" attached hereto, the Developer shall be issued a Work Order by the County. The Developer shall advise the County Engineer in advance of the actual start of construction and arrange for all inspections required and specified in Exhibit "B" attached hereto. The Developer shall permit the County or other participating agencies to make such tests and inspections during the construction of the improvements and upon completion of the improvements as are necessary or desirable.

3. Prior to final acceptance of the completed improvements by the County the Developer shall furnish to the County Engineer all documentation of the completion of construction as set forth and specified in Exhibit "A" attached hereto.

4. The Developer shall be solely responsible for maintaining the premises being subdivided in a safe condition. The Developer agrees to defend, indemnify and hold harmless the County and its officers, agents and employees from and against all suits, actions or claims of any character brought because of any injury or damage arising out of the design or construction of the improvements or by reason of any act or omission, or misconduct of the Developer, his agents, employees or the Engineer or Contractor or their agents or employees. The indemnity required hereunder shall not be limited by reason of the specifications of any particular insurance coverage in this Agreement. Nothing herein is intended to impair any right or indemnity under the laws of the State of New Mexico.

5. The Developer shall procure or cause to be procured and maintain public liability insurance in the amount of not less than One Million Dollars ($1,000,000) combined single limit for accidents or occurrences which cause bodily injury, death or property damage to any member of the public resulting from any condition of the lands of the subdivision or improvements therein or the construction activities thereon. The insurance policy must name the County of Bernalillo, its employees, and elected officials, as their interest may appear, as additional insureds. The Developer shall maintain such insurance until acceptance of the improvements by the County. Any cancellation provision must provide that if the policy is canceled prior to the expiration date hereof, materially changed, or not renewed, the issuing company will mail 30 days written notice to the County, attention County Engineer. The Developer shall furnish the County Engineer a certificate of said insurance prior to issuance of a Work Order for construction of the improvements.

6. Deleted.

7. At the time of acceptance of the completed improvements or any portion thereof by the County, the Developer shall furnish or cause to be furnished a bond or other suitable guarantee in a form and with a surety satisfactory to the County to guarantee the completed project against defective materials and workmanship for a period of one (1) year following the date of acceptance by the County.

8. The County may either perform or monitor the performance of inspections during the course of construction of the improvements and inspect the improvements upon their completion in a timely manner, all as set forth and specified in Exhibit "B" attached hereto. The County may, at any time, inspect the Improvements within the Subdivision to determine that the requisite work and material has been incorporated into the Subdivision and that the Developer is building the Improvements in accordance with its obligations herein. The Developer shall give the County sufficient notice of its construction activities called for in this agreement for the County to schedule its inspections. In this context, "sufficient notice" shall mean notice received by the County Public Works Department at least five working days prior to each new stage that may need inspection, or any shorter time agreed to by the County Engineer or his designated agent. The County may elect not to make any of these inspections, except that the County shall perform a final inspection prior to the termination of this Agreement.

9. The County shall designate a Construction Engineer and/or Inspector for this project.

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10. The County may make available at established reproduction costs for the use of the Developer or its agents all of its maps, records, laboratory tests, or other data pertinent to the work to be performed by the Developer or its agents pursuant to this Agreement and also any other maps, records, or other materials available to the County upon the County's request to any other public agency or body.

11. The County shall issue a Certificate of Completion and Acceptance for the Improvements upon final completion to the County's satisfaction of the Improvements as described in the plans and specifications as set forth and specified in Exhibit "A" attached hereto. However, the County Engineer, in his discretion, may issue a Certificate of Completion and Acceptance for a portion of the Improvements in accordance with the conditions and procedures set forth in Exhibit "C" attached hereto.

12. If the Developer has requested Final Plat approval by the County prior to the actual construction of the improvements, the County will approve the Final Plat for recordation upon execution of this Agreement, payment of all fees specified in Exhibit "A" attached hereto, delivery of the financial guarantee specified in Exhibit "C" attached hereto and full compliance with the County's Subdivision Ordinance.

13. This Agreement shall not be assigned except with the written consent of the parties hereto and the express written concurrence of any surety who has undertaken to guarantee the completion of the Improvements. If so assigned, this Agreement shall extend to and be binding upon the heirs, executors, administrators, successors, and assigns of the parties hereto.

14. In the event of the sale, conveyance, or assignment of the Subdivision or any portion thereof, the County will not release the Developer from its obligations under this Agreement and will continue to hold the Developer responsible for all Improvements until a successor in interest to the Developer has posted a suitable guarantee and entered into a Subdivision Improvement Agreement with the County. At such time as acceptable security has been posted by the Developer's successor in interest and the Agreement executed, the County will release the guarantee.

15. Should there be a conflict between the terms and conditions of this Agreement (with Exhibits A, B, C and D) and the terms and conditions of any other document referred to herein, the terms and conditions of this Agreement (with Exhibit A, B, C and D) shall govern.

16. TERMINATION. This Agreement shall terminate and the said Letter of Credit shall be canceled and be of no further force and effect when the above-described Improvements within the Subdivision have been completed to the County's standards and specifications and so verified in writing by the Bernalillo County Public Works Department, or as specified as in Paragraph 1 of this Agreement, or at an earlier date mutually agreed on by the County and Developer.

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17. If any part of this Agreement is held to be invalid or unenforceable, such holding shall not affect the validity or enforceability of any other part of this Agreement as long as the remainder of the Agreement is reasonably capable of completion.

18. NOTICES. Notice required to be given under this Agreement shall be given to the parties as shown below:

COUNTY COMMISSION:

BERNALILLO COUNTY PUBLIC WORKS DEPARTMENT
2400 Broadway, S.E.
Albuquerque, N.M. 87102

DEVELOPER:

SHC General Contractor
606 Dartmouth N.E.
Albuquerque, N.M. 87106
Attn. Frank (Skip) Hines

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first above written.

SIGNED

Developer

Frank L. (Skip) Hines Jr.

Bernalillo County Public Works Department

Roberto A. Romero 1/7/91

Eng. Div. Mgr.

County Public Works Dept.

STATE OF NEW MEXICO)
) ss.
COUNTY OF BERNALILLO)

The foregoing instrument was acknowledged before me this 4th day of January, 1991, by FRANK L. HINES, JR.

Heidi C Chester
Notary Public

My Commission Expires:

March 18, 1991

OFFICIAL SEAL
HEIDI C. CHESTER
NOTARY PUBLIC STATE OF NEW MEXICO
Notary Bond Filed with Secretary of State
My Commission Expires 3-18-91

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EXHIBIT "A"
TO SUBDIVISION IMPROVEMENT AGREEMENT
EXECUTED BY AND BETWEEN SHC General Con **(DEVELOPER)**
AND COUNTY OF BERNALILLO (COUNTY) ON
THE 7 **DAY OF** January, 19 94.

1. COMMITMENT TO CONSTRUCT IMPROVEMENTS.

The Developer shall construct in a manner satisfactory to the County the improvements identified in Paragraph 1 of the Subdivision Improvement Agreement, which are shown in greater detail on the Developer's proposed and approved Subdivision Improvements Plan, which was filed with the office of the County Engineer and identified as Project No. PWD 90-42 . PW. 90-42

2. DESIGN AND CONSTRUCTION METHODS.

As soon as reasonably practical after approval of the Developer's Preliminary Plat of the Subdivision, the Developer shall submit to the County Engineer final construction plans, specifications, and costs estimates for the proposed improvements. At this time, the Developer shall pay all fees required under Paragraph 4 of this Exhibit.

The Developer has engaged The Mann Company as Engineer(s) for the construction project, who are Registered Professional Engineers in the State of New Mexico. The Developer shall ensure that the Engineer(s), in such capacity, shall provide the following services prior to, during, and after construction of the improvements:

The Developer shall ensure that the Engineer(s) perform all of the above services in a satisfactory manner and submit to the County Engineer any reports required by the County Engineer.

The Developer has engaged Chavez Concrete & Excavation Contractors as Contractor(s), who is properly licensed in the State of New Mexico . The Developer shall ensure that the Contractor(s), in such capacity, shall in a manner satisfactory to the County construct the improvements as shown on Developer's proposed Subdivision Improvements Plan (Project No. PWD 90-42), incorporating any change orders approved by the County Engineer, and all other applicable ordinances, laws, regulations, and policies. Construction surveying and testing shall be performed as set forth in Exhibit "B" of the Subdivision Improvement Agreement between Developer and the County.

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3. COMPLETION OF CONSTRUCTION

The Developer shall report the completion of construction in writing to the County Engineer. Upon receipt of the report, the County Engineer or his representative shall visually inspect the public improvements to verify completion of construction according to plan. Subsequent to verification, the Developer shall submit to the County Engineer a "final acceptance package", which shall consist of the following documents:

a. "As-built" drawings of reproducible quality, depicting all construction of the public improvements as actually accomplished in the field and certified by a New Mexico Registered Professional Engineer or Land Surveyor, as appropriate,

b. A list of quantities of contract items in place, using the bid items in the City Of Albuquerque's Engineers Standard Estimated Unit Prices. This list shall be divided into the following categories as applicable:

(1) Sanitary sewer items and quantities;
(2) Water service items and quantities;
(3) Street Paving quantities;
(4) Street curb and gutter quantities;
(5) Storm drainage improvements and quantities.

The County shall concurrently provide a written certification from the County Engineer that the construction has been performed in substantial compliance with the final plans and specifications for public improvements approved by the Bernalillo County Public Works Department and in accordance with the Subdivision Plat as submitted to and approved by Bernalillo County. A copy of such plat is hereto attached and incorporated as Exhibit "F". If the County is acting as the Contractor for all or a portion of the improvements constructed pursuant to this Agreement, the County shall prepare its own final acceptance package documents for those improvements actually constructed by the County.

Upon receipt of the Developer's "final acceptance package", the County Engineer shall review it for completeness and accuracy. If the documentation has been satisfactorily completed, the County Engineer shall approve the package and issue a Certificate of Completion and Acceptance. Any financial guarantee provided by the Developer in accordance with Exhibit "C" to the Subdivision Improvement Agreement between the Developer and the County shall be released no later than sixty (60) days after approval of the final acceptance package by the County Engineer.

4. PAYMENT OF FEES

Prior to issuance of a Work Order, the Developer shall pay to the County the following fees:

Type of Fee	Amount

Prior to final acceptance of the improvements by the County, the Developer shall pay any County fees which may have been incurred during the course of construction.

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EXHIBIT "B"
TO SUBDIVISION IMPROVEMENT AGREEMENT
EXECUTED BETWEEN SHC General Contractor **(DEVELOPER)**
AND THE COUNTY OF BERNALILLO (COUNTY)
ON THE 1 **DAY OF** January, 1991

1. CONSTRUCTION INSPECTION METHODS

Inspection of the subdivision improvement construction shall be performed by Bernalillo County and/or The Mann Company, a New Mexico Registered Professional Engineer, in accordance with all applicable laws, ordinances and regulations. If said inspection is performed by an entity other than the County, the County may monitor said inspection and the Developer shall ensure that the inspecting entity provides all inspection results, reports and related data to the County as required for review. The County retains the right to perform its own general overall inspection of the construction project at any time prior to final acceptance of the improvements if deemed necessary or advisable by the County Engineer. For any inspections performed by the County, the Developer shall pay to the County a reasonable fee therefor.

2. CONSTRUCTION SURVEYING

Construction surveying for the subdivision improvement project shall be performed by Carl Harrington Surveying And or Bern. Co. in accordance with all applicable laws, ordinance and regulations. If said construction surveying is performed by an entity other than the County, the County may monitor said construction surveying and the Developer shall ensure that the construction surveying entity provides all construction surveying field notes, plats, reports and related data to the County as required for review. If any construction surveying is performed by County, the Developer shall pay to the County a reasonable fee therefor.

3. FIELD TESTING

Field testing of the subdivision improvement construction shall be performed by Bernalillo County and/or The Mann Company, a certified testing laboratory under the supervision of a New Mexico Registered Professional Engineer, in accordance with the technical standards contained in the applicable contract documents and all applicable laws, ordinances, and regulations. If any field testing is performed by an entity other than the County, the County may monitor said field testing and the Developer shall ensure that the field testing entity provides all field testing results, reports and related data to the County as required for review. If any field testing is performed by the County, the Developer shall pay to the County a reasonable fee thereof.

4. RECORD TESTING

Notwithstanding the provisions of Paragraph 3 above, the County

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retains the right to perform any and all record testing which may be deemed necessary or advisable by the County Engineer and the Developer shall pay to the County a reasonable fee therefor.

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EXHIBIT "C"
TO SUBDIVISION IMPROVEMENTS AGREEMENT
EXECUTED BETWEEN SHC General Cont. **(DEVELOPER)**
AND COUNTY OF BERNALILLO (COUNTY)
THE 1 **DAY OF** January **19**91

1. **PLAT APPROVAL STATUS**

The Developer has/has not (circle one) requested final plat approval by the County prior to construction of the Subdivision Improvements described in Paragraph 1 of the Subdivision Improvements Agreement. If the Developer has not requested final plat approval prior to construction of the improvements, no financial guarantee is required by the County. However, the Developer understands and agrees that the County will not approve the Developer's proposed plat until the improvements are completed in accordance with the Agreement to which this document is attached as an Exhibit.

If the Developer has requested final plat approval prior to the construction of the improvements, a financial guarantee in an amount of not less than 125 percent of the costs of completing the improvements (as estimated by the County Engineer) is required. Said financial guarantee must be irrevocable in form and shall be effected by a letter of credit payable to the County in the event of Developers default under the Subdivision Improvement Agreement.

2. **FINANCIAL GUARANTEE**

Concurrent with the execution of this Agreement, Developer shall place with County and acceptable Letter of Credit hereto attached as Exhibit "E" in the amount of $4225.00 Dollars ($4225.00) subject to the terms and conditions of this Agreement. The Letter of Credit shall be in effect from the date of this Subdivision Improvements Agreement to ninety calendar days after the date specified in Paragraph 1. of the Subdivision Improvement Agreement. The Letter of Credit shall reference this Agreement as an attachment. For the purposes of this Agreement, the bank or other financial institution issuing the Letter of Credit is designated the Guarantor. The County agrees to hold the Letter of Credit and to make draws against it only as provided in this Agreement.

With respect to the Subdivision Improvements Agreement to which this document is attached as an Exhibit, the Developer has acquired or is able to acquire the following described financial guarantee (describe fully, indicate amount, identification number, names of bank or bonding entity, inclusive dates of guarantee, and all other relevant information):

United New Mexico Bank
#2225 Irrevocable Letter of Credit number

The Developer understands and agrees that the original executed financial guarantee described above must be delivered to the County prior to the approval and filing of the Final Subdivision Plat: and must be in an amount of not less than 125 percent of the cost of completing the improvements, as estimated by the County Engineer.

In the event the Developer shall fail or neglect to fulfill his obligations under this Agreement, the County shall have the right to construct or cause to be constructed the Improvements specified herein, as shown on the Final Plat and in the plans and specifications as approved, and the Developer as Principal and the surety or sureties shall be jointly and severally liable to pay to and indemnify the County, the total cost to the County thereof, including but not limited to, engineering, legal, and contingent costs together with any damages, either direct or consequential, which the County may sustain on account of the failure of the Developer to carry out and execute all of the provisions of the Agreement to which this document is attached as an Exhibit. The County shall have the unconditional right to call upon the financial guarantee provided by the Developer described in this paragraph for the purposes specified and in the amounts enumerated in such guarantee.

If the Developer fails to or refuses to complete the Improvements under the terms of this Agreement by the date as specified in Paragraph 1 of the Subdivision Improvement Agreement, the County, without any notice to the Developer, may at any time (or times) draw upon the Letter of Credit for those funds it deems necessary to complete the work - whether by the County, a private company, or a public agency - upon certifying (1) that the Developer has not completed the Improvements, and (2) that the amount drawn against the Letter of Credit does not exceed 125% of the estimated cost of completing the Improvements. The certification shall be made by a notarized statement signed by the Director of the Bernalillo County Public Works Department or his designated agent. If the County takes over the completion of the Improvements because of the Developer's failure or refusal to complete the same, and if the Letter of Credit for the Improvements is insufficient, the Developer shall be liable to the County upon demand for the additional funds necessary to complete the Improvements according to the Plans and Specifications.

If the County performs or has performed on its behalf by a private company or a public agency, the Improvements specified in the Plans and Specifications, and if the final costs of the Improvements to the County, including administrative costs, is less than the amount drawn under the Letter of Credit, then the County shall refund the excess to the Developer within thirty (30) days from completion and acceptance of the Improvements.

The Developer shall be liable for the payment of all fees and costs incident to the Letter of Credit which may be charged by the Issuer pursuant to the issuance or performance of Letter of Credit.

The Guarantor will not be liable to any of the parties hereof for acts undertaken by it upon consideration of all facts and matters presented to it, or because of the reliance by it upon representations

made to it by the parties hereto, or in the exercise of its own best judgement, or in good faith reliance upon an opinion of counsel. Guarantor shall have no responsibility, duty, or liability to determine whether any requests by County for draws upon said Letter of Credit are in accordance with this Agreement or whether Developer has any defenses to said draw requests.

Notwithstanding the Letter of Credit, the Developer is liable for any and all costs for completing the designated Improvements in excess of any amounts paid to the County pursuant to its call upon the Letter of Credit.

In the event that it costs more to build the Improvements than provided by the Letter of Credit, the Developer shall bear all additional cost regardless of the final amount necessary to complete the Improvements. The Developer shall be responsible for completion of all Improvements shown on the Plans.

Notwithstanding the above, the County has no obligation to complete the Improvements. The County may elect to complete any Improvements through the use of County equipment and County Employees, and charge for said items their reasonable value, or the County may bid the job and let a contract to a private construction firm, which construction firm shall be entitled to payment from the monies obtained under the Letter of Credit.

3. PROCEDURES FOR REDUCTION OF FINANCIAL GUARANTEE UPON PARTIAL COMPLETION OF IMPROVEMENTS

The Developer may request a reduction in the amount of financial guarantee upon partial completion of the subdivision improvement. To qualify for a financial guarantee reduction, the completed improvements must be of a free-standing nature, functionally independent of any uncompleted improvements, and completed in substantial compliance with the subdivision improvement construction plans as determined by an inspection conducted by the County.

If the completed improvements meet the above requirements, the County Engineer will than estimate the costs of completing the remaining improvements. the Developer may then submit the following documents to the County for review and approval:

a) A revised financial guarantee in an amount of not less than 125 percent of the County Engineer's estimated costs of completing the remaining improvements;

b) A release of the original financial guarantee for execution by the County.

c) Documentation that the completed improvements and the land in which the completed improvements are located are subject to no liens, claims or other encumbrances;

d) A bond or other suitable instrument guaranteeing the completed improvements against defective materials and workmanship for a period of one (1) year as set forth in Paragraph 7 of the Subdivision Improvement Agreement between the Developer and the County.

Upon receipt of the above-described documents in forms acceptable to the County, the County shall issue a Certificate of Completion and Acceptance for the completed improvements and accept the revised financial guarantee tendered by the Developer.

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Case No. _____
Date Submitted _____

EXHIBIT "D"
to Subdivision Improvements Agreement
DEVELOPMENT REVIEW BOARD (DRB)
REQUIRED INFRASTRUCTURE LISTING
for SHC General Contractor

Following is a summary of the Public/Private Infrastructure required to be constructed or financially guaranteed to be constructed for the above development.

Size	*Type Improvement	Location	From	To
___	Drainage Channel	12505 & 12509 Modesto N.	___	___
___	_____	_____	___	___
___	_____	_____	___	___
___	_____	_____	___	___
___	_____	_____	___	___
___	_____	_____	___	___

This instructional information may be from official listings

*Types may include Arterial Paving, Residential Paving, Water Line, Sanitary Sewer, Storm Sewer Drainage Channel, Sidewalks and Retaining Walls. Any no-standard design or waivers must be clearly described in this listing.

If phase platting is anticipated, a listing should be prepared for each proposed phase.

Use additional sheets as necessary to complete the listing. The final page must be signed by the preparer and provide signature spaces for DRB members, as illustrated below.

Prepared by: _____
Print Name: _____
Firm: _____ Page _____ of _____

****

Development Review Board Member Approvals

Traffic	Date	WRD	Date
City Engineering/AMAFCA	Date	Parks & Recreation	Date
DRB Chairman	Date	County Public Works	Date

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UNITED
NEW MEXICO BANK

United New Mexico Bank at Albuquerque
Post Office Box 1081
Albuquerque, New Mexico 87103-1081
Telephone 505 765-5000

IRREVOCABLE LETTER OF CREDIT AND AGREEMENT NUMBER 2275

AMOUNT: $4,225.00

Mr. John Ramsey
Director of Bernalillo County Public Works Department
2400 Broadway SE
Albuquerque, NM 87102

Dear Mr. Ramsey:

At the request of S.H.C. General Contractor, a General Contractor, we establish our Irrevocable Letter of Credit in your favor for the account of S.H.C. General Contractor to the extent of and not exceeding Four Thousand Two Hundred Twenty Five and 00/100 Dollars ($4,225.00).

This Letter of Credit has been established to insure that completion of Project Number PWD 90-42 as provided by the Agreement between S.H.C. General Contractor, and the County of Bernalillo which Agreement is recorded in Book Misc. _____, pages _____ to _____, of the records of the County of Bernalillo, State of New Mexico (the "Agreement"). A Draft or Drafts for any amount up to but not in excess of Four Thousand Two Hundred Twenty Five and 00/100 Dollars ($4,225.00) is/are available at sight at United New Mexico Bank at Albuquerque, between January 4, 1991 and June 3, 1991.

When presented for negotiation, the Draft(s) is/are to be accompanied by the following documents:

The County's notarized certification stating that S.H.C. General Contractor has failed to comply with the terms of the Agreement, and also certifying that "the undersigned is the Director of Public Works of the County of Bernalillo and is authorized to sign this statement," and also certifying that the amount of the Draft does not exceed 125% of the cost of completing the improvements specified in the Agreement.

We hereby agree with the drawer of Draft(s) drawn and under and in compliance with the terms of this credit that such Draft(s) will be duly honored on the presentation to the drawee if negotiated between January 4, 1991 and June 3, 1991.

The Draft(s) drawn under this credit must be endorsed and contain the clause: "Drawn under Letter of Credit and Agreement Number 2275, dated January 4, 1991"; the amount of such Draft(s) must be endorsed on the reverse side thereof, and this Letter of Credit must be attached to that Draft which exhausts this credit.

This credit is subject to the Uniform Customs and Practice for Documentary Credits (1983 Revisions), International Chamber of Commerce Publication Number 400.

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This credit terminates at 12:00 p.m., New Mexico time, June 3, 1991.

UNITED NEW MEXICO BANK AT ALBUQUERQUE

By: _____
Bruce R. Beebe, Senior Vice President

APPROVED AS TO FORM:

COUNTY OF BERNALILLO

_____
Assistant County Attorney

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APPLICATION FOR STANDBY LETTER OF CREDIT AND AGREEMENT

UNITED NEW MEXICO BANK

TO: Director of Bernalillo County Public Works Department
Attention: John Ramsey
2400 Broadway SE
Albuquerque, NM 87102

L/C # 2275
DATE January 4, 1991

Please issue your non-negotiable Irrevocable Letter of Credit (the"Credit") substantially in the form outlined below and:

( ) deliver the Credit to the Beneficiary via air mail
(X) deliver the Credit to the undersigned ("Customer") for delivery to the Beneficiary
( ) Other _____

Please issue the Credit in the sum of (in words) Four Thousand Two Hundred Twenty Five and 00/100 Dollars ($***4,225.00***)

In favor of ("Beneficiary") Bernalillo County Public Works Department

whose address is 2400 Broadway SE

Albuquerque, New Mexico Zip 87102

Drawings on the Credit may be made by the Beneficiary by sight (draft(s) presented to Bank's Credit Department In Albuquerque, New Mexico, when accompanied by the following documents.

1. Beneficiary's signed statement that:

The County's notarized certification stating that S.H.C. General Contractor has failed to comply with the terms of the Agreement and also certifying that "the undersigned is the Director of Public Works of the County of Bernalillo and is authorized to sign this statement," and also certifying that the amount of the Draft does not exceed 125% of the cost of completing the improvements specified in the Agreement.

Partial drawings shall be permitted: ( ) Yes ( ) No

The Credit shall expire at close of business at Bank's Credit Department in Albuquerque, New Mexico on June 3, 19 91, the "Expiry Date."

TO BE COMPLETED BY BANK PRIOR TO SIGNATURE BY CUSTOMER:

Collateral Documents (X) No
( ) Yes Description _____

Issuance Fee Rate 1.00 % per annum. Minimum Issuance Fee $ _____

THE TERMS AND CONDITIONS ON THE REVERSE SIDE HEREOF ARE A PART OF THIS APPLICATION AND AGREEMENT.

Frank L. Hines, Jr.
Name of Customer

Frank L. Hines Jr.
Signature & Title

371A (8/89)

25×10

0000 0000 1449

FILE COPY

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

January 16, 1991

Tom Mann, P.E.
The Mann Company
811 Dallas Street, NE
Albuquerque, New Mexico 87110

RE: DRAINAGE PLAN FOR LOTS 31 AND 32, BLOCK A, UNIT 1, NORTH ALBUQUERQUE ACRES, (B-22/D8), BP 90-792 AND BP 90-793, ENGINEER'S STAMP DATED DECEMBER 7, 1990

Dear Mr. Mann:

Based on the information provided on the referenced submittal received January 9, 1990, the plan is approved for Building Permit release.

1. Financial Guarantee requirements for the riprap and filter blanket has been executed, according to Bernalillo County Public Works.

2. The required maintenance covenant agreement has been executed, according to Bernalillo County Public Works.

3. The required drainage easements have been executed, according to AMAFCA.

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

Cordially,

Gilbert Aldaz
Floodplain Administrator

xc: Clifford E. Anderson, AMAFCA
Bob Fogelsong, Bernalillo County
Tom Burlison, County Building Department
Skip Hines, Owner

GA
wp+1975

25×

0000 0000 1450

INAGE INFORMATION SHEET

PROJECT TITLE: Lots 31 & Lot 32 ZONE ATLAS/DRNG. FILE #: B22/D8

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

LEGAL DESCRIPTION: Lot 31, 32, BLOCK A, UNIT 1, N.A.A.

CITY ADDRESS: 12409, 12501 & 12609 modesto NE

ENGINEERING FIRM: The MANN Co. CONTACT: TOM MANN

ADDRESS: 8200 Mountain Rd NE PHONE: 266-3555

OWNER: SKIP HINES CONTACT: SKIP HINES

ADDRESS: 606 Dartmouth NE PHONE: 1-252-1144

ARCHITECT: UNKNOWN CONTACT: _____

ADDRESS: _____ PHONE: _____

SURVEYOR: THE MANN. Co. CONTACT: _____

ADDRESS: _____ PHONE: _____

CONTRACTOR: SKIP HINES 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
✓ BUILDING PERMIT APPROVAL
___ CERTIFICATE OF OCCUPANCY APPROVAL
___ GRADING PERMIT APPROVAL
___ PAVING PERMIT APPROVAL
___ S.A.D. DRAINAGE REPORT
___ DRAINAGE REQUIREMENTS
___ OTHER _____ (SPECIFY)

RECEIVED
JAN 9 1991
HYDROLOGY DIVISION

DATE SUBMITTED: 1/9/91

BY: _____

BP 90-792
90-793

25×

91 1 6 2323

GRANT OF EASEMENT
FLOODWAY AND STORM DRAINAGE WORKS IN NORTH ALBUQUERQUE ACRES

SHC General Contractor, Grantors, for good and valuable consideration, the receipt of which is hereby acknowledged, does grant, bargain, sell and convey unto the ALBUQUERQUE METROPOLITAN ARROYO FLOOD CONTROL AUTHORITY, a political subdivision of the State of New Mexico, Grantee, and its successors and assigns, the permanent right and easement for drainage, flood control and conveyance of storm water and the construction, reconstruction, operation and maintainance of, and access to such facilities on, in, under, over and across the following described real estate:

The land in which the foregoing rights and easements are granted is located in the County of Bernalillo and State of New Mexico and is more particularly described in Exhibit "A" attached hereto and incorporated herein by reference.

Except by the written approval of AMAFCA, no fence, wall, building, or other obstruction may be placed or maintained in said easement and there shall be no alteration of the grades or contours in said easement. The granting of this easement shall not obligate the Grantee to maintain natural arroyos, drainage channels, or facilities that do not meet the standards of the Grantee for design and construction, nor shall this granting require the protection of property lying outside of the easement granted. Safe locations for structures built on lands adjacent to the real property described herein may be substantially outside of the area described herein.

TO HAVE AND TO HOLD the said right and easement for the uses and purposes aforesaid, unto the Grantee, its successors and assigns, forever, except that any portion of the easement granted herein shall revert to the Grantor, its successors or assigns, as and to the extent said portion is declared unnecessary for flood control or drainage by the Board of Directors of the Albuquerque Metropolitan Arroyo Flood Control Authority. Any reversion shall be conveyed by quitclaim deed.

THERE IS RESERVED to the Grantor, its successors and assigns, the right to use said lands for open space landscaping and other purposes which will not interfere with the rights and easements hereby granted, provided that Grantor obtains Grantee's written approval for such use, not to be unreasonably withheld.

WITNESS its hand and seal this 4 day of January, 1991

Frank L. (Skip) Hines Jr.

ACKNOWLEDGMENT FOR NATURAL PERSONS

STATE OF NEW MEXICO)
) SS.
COUNTY OF BERNALILLO)

The foregoing instrument was acknowledged before me this 4th day of January, 1991 by Frank L. (Skip) Hines Jr

My commission expires:
March 18 1991

Heidi C. Chester
Notary Public

OFFICIAL SEAL
(SEAL) HEIDI C. CHESTER
NOTARY PUBLIC STATE OF NEW MEXICO
Notary Bond Filed with Secretary of State
My Commission Expires 3-18-91

STATE OF NEW MEXICO
COUNTY OF BERNALILLO
FILED FOR RECORD
1991 JAN -7 PM 1:28
BK BCR 91-1 PG 2323-2324
GLADYS M. DAVIS
CO CLERK & RECORDER
DEPUTY

25×

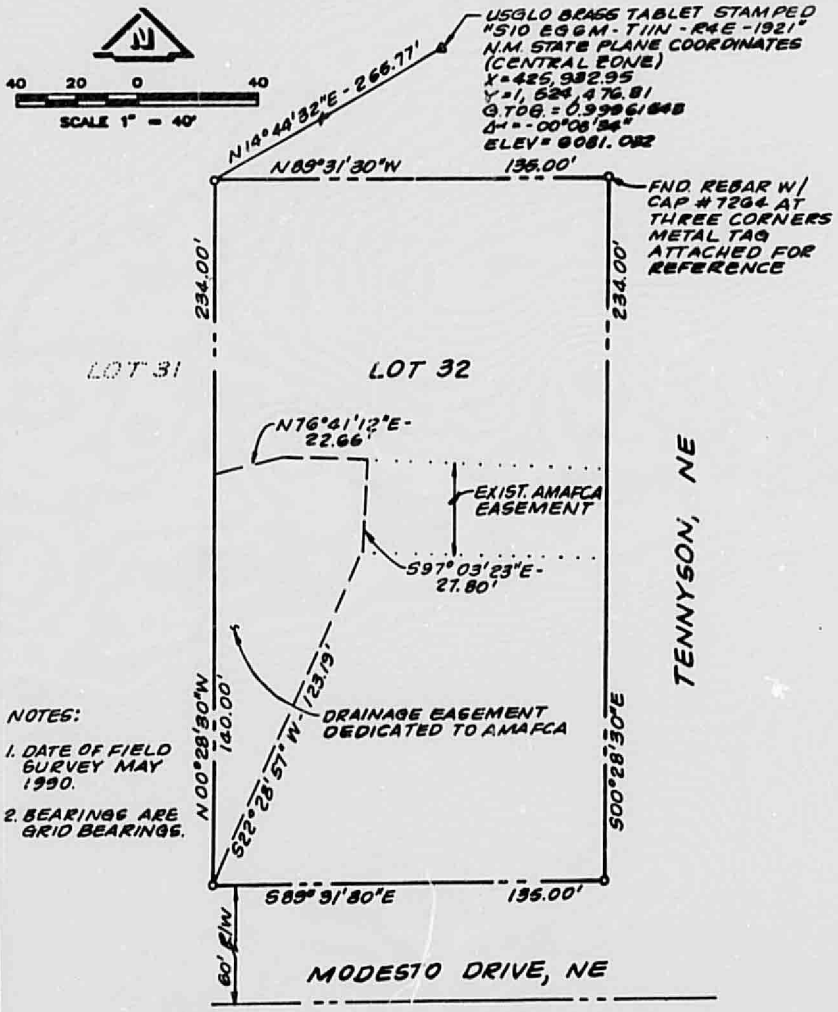
0000 0000 1452

EXHIBIT "A"

2324

DESCRIPTION

A certain tract of land comprising all of Lot 32, Block A, Tract 2, Unit 1, North Albuquerque Acres, as shown on the plat filed in the Office of the County Clerk of Bernalillo County, New Mexico on, March 23, 1931, (D-130).



NOTES:

1. DATE OF FIELD SURVEY MAY 1990.
2. BEARINGS ARE GRID BEARINGS.

CERTIFICATION

I, Thomas T. Mann, Jr., a Registered Professional Surveyor under the laws of the State of New Mexico, do hereby certify that this plat was prepared by me or under my supervision, meets the Minimum Standards for Land Surveying in New Mexico and is true and correct to the best of my knowledge and belief.

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR — STATE OF NEW MEXICO — THOMAS T. MANN, JR. — 7312

Thomas T. Mann, Jr., N.M.P.E. & P.S. No. 7312
811 Dallas, NE
Albuquerque, NM 87110

25×10 32×10

2326

EXHIBIT "A"

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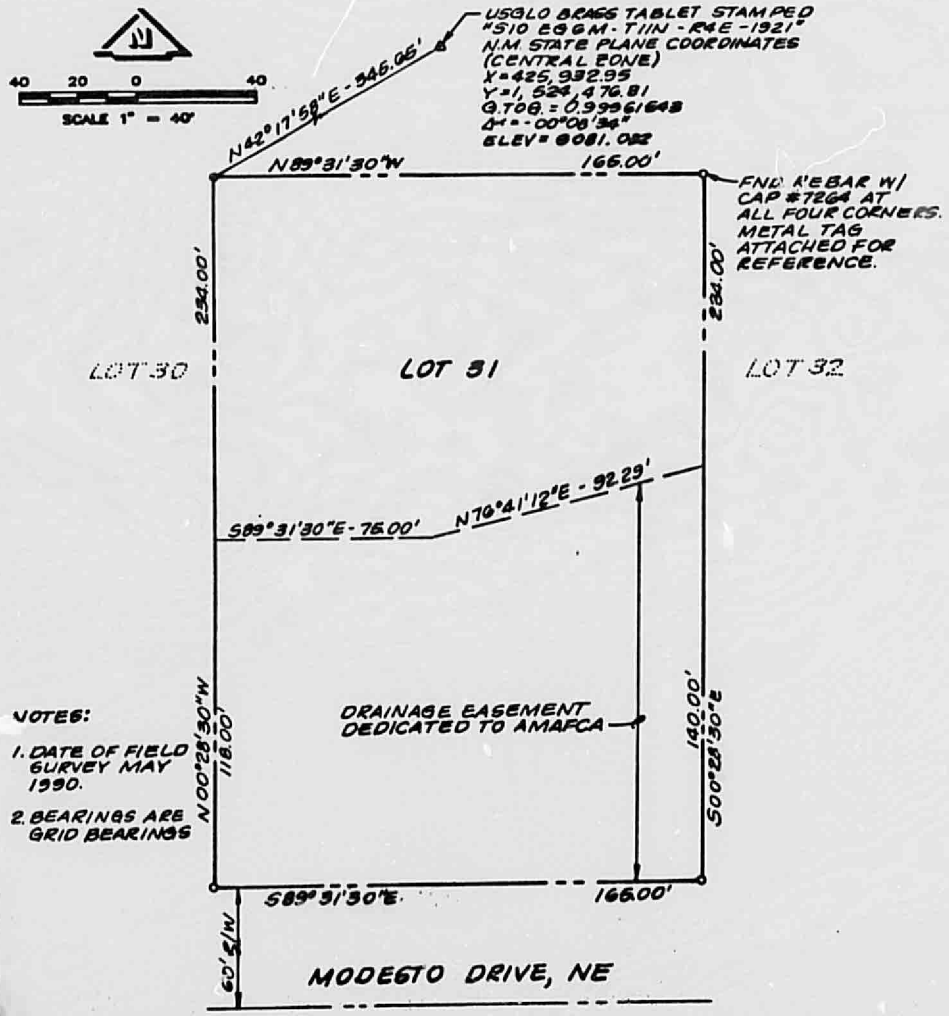

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1. DATE OF FIELD SURVEY MAY 1990.
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PROFESSIONAL ENGINEER STATE OF NEW MEXICO THOMAS T. MANN, JR. 3192 LAND SURVEYOR

Thomas T. Mann, Jr., N.M.P.E. & P.S. No. 7991
811 Dallas, NE
Albuquerque, NM 87110

25×10 32×10

91 12 1

2325

GRANT OF EASEMENT
FLOODWAY AND STORM DRAINAGE WORKS IN NORTH ALBUQUERQUE ACRES

SHC General Contractor, Grantors, for good and valuable consideration, the receipt of which is hereby acknowledged, does grant, bargain, sell and convey unto the ALBUQUERQUE METROPOLITAN ARROYO FLOOD CONTROL AUTHORITY, a political subdivision of the State of New Mexico, Grantee, and its successors and assigns, the permanent right and easement for drainage, flood control and conveyance of storm water and the construction, reconstruction, operation and maintainance of, and access to such facilities on, in, under, over and across the following described real estate:

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WITNESS its hand and seal this 4 day of January, 1991.

Frank L. (Skip) Hines

ACKNOWLEDGMENT FOR NATURAL PERSONS

STATE OF NEW MEXICO)
) SS.
COUNTY OF BERNALILLO)

The foregoing instrument was acknowledged before me this 4 day of January, 1991 by FRANK L. (SKIP) HINES JR.

My commission expires: OFFICIAL SEAL

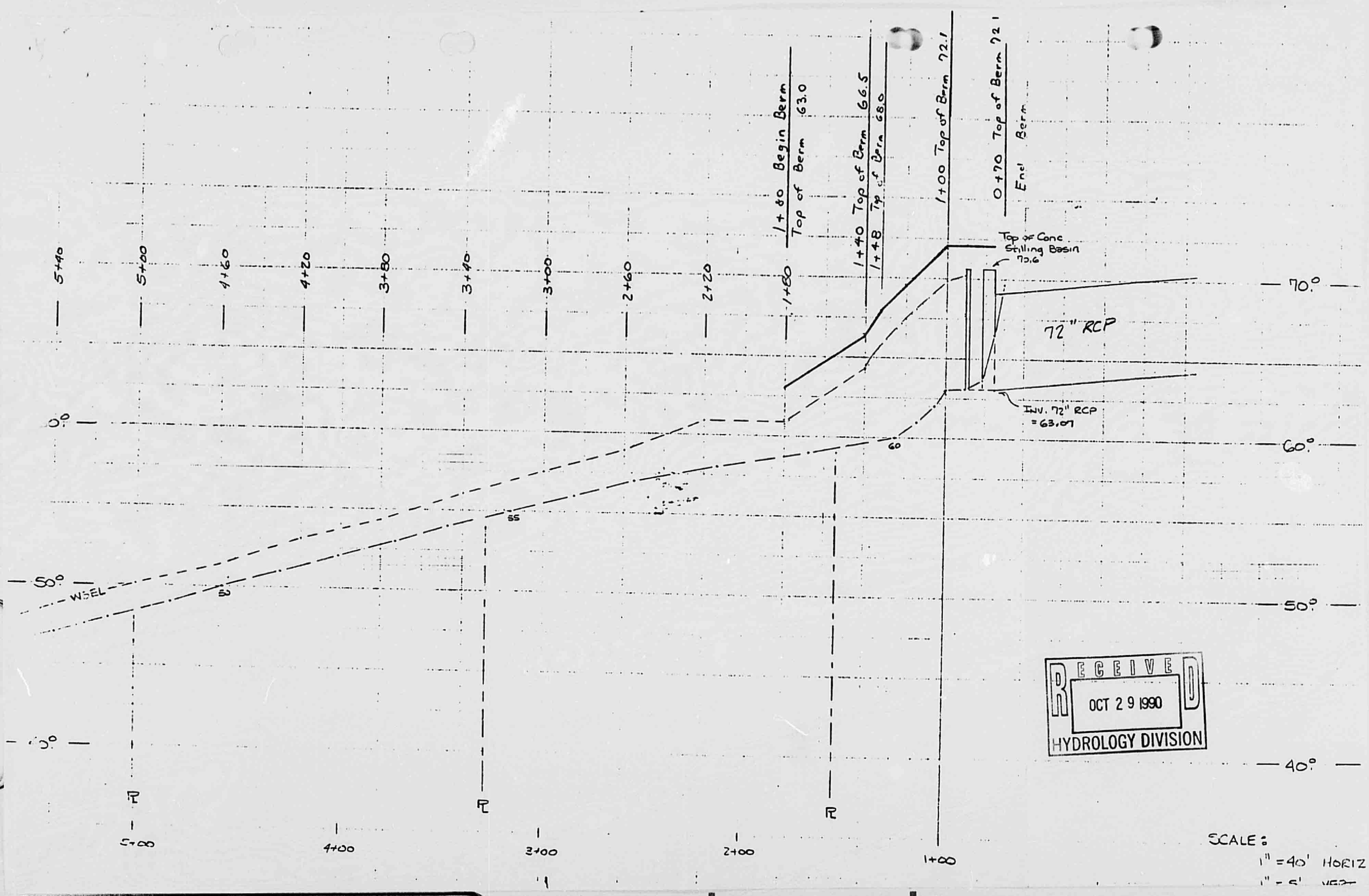
HEIDI C. CHESTER
NOTARY PUBLIC STATE OF NEW MEXICO
Notary Bond Filed with Secretary of State
My Commission Expires 3-18-91

Heidi C Chester
Notary Public

STATE OF NEW MEXICO
COUNTY OF BERNALILLO
FILED FOR RECORD
1991 JAN -7 PM 1:28
BK 91 PG 2325
GLADYS M. DAVIS
CO CLERK & RECORDER
DEPUTY

2325
2326

0000 0000 1455



RECEIVED
OCT 29 1990
HYDROLOGY DIVISION

25×10 32×10 25×10

0000 0000 1456

72" RCP
RECEIVED
OCT 29 1990
HYDROLOGY DIVISION
Taken across inside of wall at opening
90
96
Taken across riprap channel

0000 0000 1458

Momentum Balance

SECTION 2 AT DISSIPATOR

$M_1 = F_1 + P_1 = 702 \text{ FT.}^3$ $\quad M_2 = F_2 + P_2$

Overall Eq.

$$M_2 = M_1 - P_W$$

$$P_W = K_P A_P \bar{Y}$$

$P_W \rightarrow$ HYDROSTATIC PRESSURE OF BRIDGE PIER (OR WALL)

$K_P \rightarrow$ "PIER" FACTOR
1.0 FOR SQUARE-NOSED PIERS
2/3 FOR ROUND-NOSED PIERS

$A_P \rightarrow$ AREA OF "PIERS"

$\bar{Y} \rightarrow$ CENTROIDAL MOMENT ARM OF A_P ABOUT THE HYDRAULIC GRADE AT THE SECTION

TRY $Y_2 = 8.0$

$M_2 = 702 - (1.0)(8 \times 7)(4.0)$

$M_2 = 702 - 224 = 478 \text{ Ft}^3$ (vs. 695.31)

TRY $Y_2 = 7.0$

$M_2 = 702 - (1.0)(7 \times 7)(3.5)$

$M_2 = 702 - 171.5 = 530.5 \text{ Ft}^3$ (vs. 579.64)

TRY $Y_2 = 6.5$

$M_2 = 702 - (1.0)(6.5 \times 7)(3.25)$

$M_2 = 702 - 147.88 = 554.12 \text{ Ft}^3$ (vs. 529.56)

TRY $Y_2 = 6.7$

$M_2 = 702 - (1.0)(6.7 \times 7)(3.35)$

$M_2 = 702 - 157.12 = 544.88$ (vs. 548.86)

25×

0000 0000 1459

SECTION 3 AT DISSIPATOR

$$M_2 = M_1 - PW$$

Try $Y_2 = 8.^0$

$M_2 = 702 - (1.^0)(8.^0 \times 9)(4.^0)$

$M_2 = 702 - 288 = 414\ Ft^3$ (Vs. 536.91)

Try $Y_2 = 7.^0$

$M_2 = 702 - (1.^0)(7.^0 \times 9)(3.5)$

$M_2 = 702 - 220.^5 = 481.^5\ Ft^3$ (Vs. 464.09)

Try $Y_2 = 7.2$

$M_2 = 702 - (1.^0)(7.^2 \times 9)(3.6)$

$M_2 = 702 - 233.^{28} = 468.^{72}\ Ft^3$ (Vs. 476.78)

Try $Y_2 = 7.1$

$M_2 = 702 - (1.^0)(7.^1 \times 9)(3.55)$

$M_2 = 702 - 226.^{85} = 475.^{16}$ (Vs. 470.25)

25×10

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72" PIPE AT OUTLET - Section 1

DISCHARGE= 750.0 DIAMETER OF PIPE= 6.00

WSEL (FT)	FLOW AREA (FT)	FLOW VEL. SQ.FT.	TOP WIDTH FPS	FROUDE NO.	E (FT)	M CU.FT.
0.10	0.10	7299.35	1.54	4973.89	********	********
0.20	0.29	2593.65	2.15	1247.49	********	60411.20
0.30	0.53	1419.06	2.62	556.29	31269.22	33052.59
0.40	0.81	926.50	2.99	313.97	13329.57	21580.05
0.50	1.13	666.44	3.32	201.62	6897.19	15522.98
0.60	1.47	509.68	3.60	140.49	4034.43	11871.90
0.70	1.84	406.65	3.85	103.57	2568.45	9472.15
0.80	2.24	334.66	4.08	79.57	1739.84	7795.50
0.90	2.66	282.01	4.28	63.08	1235.83	6569.53
1.00	3.10	242.13	4.47	51.27	911.38	5641.00
1.10	3.55	211.07	4.64	42.52	692.86	4917.76
1.20	4.03	186.31	4.80	35.85	540.17	4341.38
1.30	4.51	166.19	4.94	30.65	430.16	3873.26
1.40	5.01	149.58	5.08	26.52	348.83	3486.92
1.50	5.53	135.68	5.20	23.18	287.36	3163.68
1.60	6.05	123.91	5.31	20.45	240.00	2890.04
1.70	6.59	113.83	5.41	18.17	202.91	2655.98
1.80	7.13	105.13	5.50	16.27	173.42	2453.97
1.90	7.69	97.55	5.58	14.65	149.67	2278.22
2.00	8.25	90.91	5.66	13.27	130.32	2124.23
2.10	8.82	85.04	5.72	12.07	114.40	1988.45
2.20	9.39	79.83	5.78	11.04	101.16	1868.05
2.30	9.98	75.18	5.83	10.13	90.07	1760.74
2.40	10.56	71.01	5.88	9.34	80.71	1664.65
2.50	11.15	67.26	5.92	8.63	72.74	1578.25
2.60	11.74	63.86	5.95	8.01	65.93	1500.27
2.70	12.34	60.78	5.97	7.45	60.06	1429.65
2.80	12.94	57.97	5.99	6.95	54.98	1365.49
2.90	13.54	55.40	6.00	6.50	50.56	1307.05
3.00	14.14	53.05	6.00	6.09	46.70	1253.68
3.10	14.74	50.89	6.00	5.72	43.32	1204.82
3.20	15.34	48.90	5.99	5.38	40.34	1160.01
3.30	15.93	47.07	5.97	5.08	37.70	1118.83
3.40	16.53	45.37	5.95	4.80	35.37	1080.94
3.50	17.12	43.80	5.92	4.54	33.29	1046.01
3.60	17.71	42.34	5.88	4.30	31.44	1013.78
3.70	18.30	40.99	5.83	4.08	29.79	984.01
3.80	18.88	39.73	5.78	3.87	28.30	956.50
3.90	19.46	38.55	5.72	3.68	26.98	931.05
4.00	20.02	37.45	5.66	3.51	25.78	907.50
4.10	20.59	36.43	5.58	3.34	24.71	885.72
4.20	21.14	35.48	5.50	3.19	23.74	865.56
4.30	21.69	34.59	5.41	3.04	22.87	846.92
4.40	22.22	33.75	5.31	2.91	22.09	829.69
4.50	22.75	32.97	5.20	2.78	21.38	813.79
4.60	23.26	32.24	5.08	2.65	20.74	799.13
4.70	23.76	31.56	4.94	2.54	20.17	785.65
4.80	24.25	30.93	4.80	2.43	19.65	773.27
4.90	24.72	30.34	4.64	2.32	19.19	761.96
5.00	25.18	29.79	4.47	2.21	18.78	751.66

25×

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5.10	25.61	29.28	4.28	2.11	18.41	742.33
5.20	26.03	28.81	4.08	2.01	18.09	733.96
5.30	26.43	28.38	3.85	1.91	17.80	726.51
5.40	26.80	27.98	3.60	1.81	17.56	719.97
5.50	27.15	27.63	3.32	1.70	17.35	714.36
5.60	27.46	27.31	2.99	1.59	17.18	709.69
5.70	27.75	27.03	2.62	1.46	17.05	706.01
5.80	27.99	26.80	2.15	1.31	16.95	703.41
5.90	28.17	26.62	1.54	1.10	16.91	702.09
6.00	28.27	26.53	0.01	0.08	16.93	702.67

25×10

0.000 0000 1462

SECTION 2 AT DISSIPATOR

DISCHARGE = 750.0 CFS

POINT	ELEV	DIST	POINT	ELEV	DIST	POINT	ELEV	DIST
1	12.00	0.00	4	7.50	9.00	7	0.00	25.00
2	0.00	0.00	5	7.50	16.00	8	12.00	25.00
3	0.00	9.00	6	0.00	16.00			

WSEL (FT)	DEPTH INC (FT)	FLOW AREA (SQ FT)	FLOW VEL (FPS)	FROUDE NUM	E (FT)	M (CU FT)
0.10	0.10	1.80	416.67	232.20	2695.92	9705.06
0.20	0.20	3.60	208.33	82.09	674.16	4852.84
0.30	0.30	5.40	138.89	44.69	299.84	3235.80
0.40	0.40	7.20	104.17	29.02	168.89	2427.68
0.50	0.50	9.00	83.33	20.77	108.33	1943.24
0.60	0.60	10.80	69.44	15.80	75.48	1620.73
0.70	0.70	12.60	59.52	12.54	55.72	1390.83
0.80	0.80	14.40	52.08	10.26	42.92	1218.88
0.90	0.90	16.20	46.30	8.60	34.18	1085.62
1.00	1.00	18.00	41.67	7.34	27.96	979.50
1.10	1.10	19.80	37.88	6.36	23.38	893.16
1.20	1.20	21.60	34.72	5.59	19.92	821.71
1.30	1.30	23.40	32.05	4.95	17.25	761.75
1.40	1.40	25.20	29.76	4.43	15.15	710.85
1.50	1.50	27.00	27.78	4.00	13.48	667.25
1.60	1.60	28.80	26.04	3.63	12.13	629.60
1.70	1.70	30.60	24.51	3.31	11.03	596.89
1.80	1.80	32.40	23.15	3.04	10.12	568.32
1.90	1.90	34.20	21.93	2.80	9.37	543.28
2.00	2.00	36.00	20.83	2.60	8.74	521.25
2.10	2.10	37.80	19.84	2.41	8.21	501.83
2.20	2.20	39.60	18.94	2.25	7.77	484.69
2.30	2.30	41.40	18.12	2.11	7.40	469.57
2.40	2.40	43.20	17.36	1.97	7.08	456.21
2.50	2.50	45.00	16.67	1.86	6.81	444.45
2.60	2.60	46.80	16.03	1.75	6.59	434.11
2.70	2.70	48.60	15.43	1.66	6.40	425.05
2.80	2.80	50.40	14.88	1.57	6.24	417.17
2.90	2.90	52.20	14.37	1.49	6.11	410.34
3.00	3.00	54.00	13.89	1.41	6.00	404.50
3.10	3.10	55.80	13.44	1.35	5.91	399.55
3.20	3.20	57.60	13.02	1.28	5.83	395.44
3.30	3.30	59.40	12.63	1.22	5.78	392.10
3.40	3.40	61.20	12.25	1.17	5.73	389.48
3.50	3.50	63.00	11.90	1.12	5.70	387.53
3.60	3.60	64.80	11.57	1.07	5.68	386.22
3.70	3.70	66.60	11.26	1.03	5.67	385.51
3.80	3.80	68.40	10.96	0.99	5.67	385.35
3.90	3.90	70.20	10.68	0.95	5.67	385.74
4.00	4.00	72.00	10.42	0.92	5.68	386.62
4.10	4.10	73.80	10.16	0.88	5.70	388.00
4.20	4.20	75.60	9.92	0.85	5.73	389.83
4.30	4.30	77.40	9.69	0.82	5.76	392.11
4.40	4.40	79.20	9.47	0.80	5.79	394.81
4.50	4.50	81.00	9.26	0.77	5.83	397.92
4.60	4.60	82.80	9.06	0.74	5.87	401.42

25×10

				F.		
4.70	4.70	84.60	8.87	0.72	5.92	405.30
4.80	4.80	86.40	8.68	0.70	5.97	409.55
4.90	4.90	88.20	8.50	0.68	6.02	414.15
5.00	5.00	90.00	8.33	0.66	6.08	419.10
5.10	5.10	91.80	8.17	0.64	6.14	424.38
5.20	5.20	93.60	8.01	0.62	6.20	429.99
5.30	5.30	95.40	7.86	0.60	6.26	435.92
5.40	5.40	97.20	7.72	0.59	6.32	442.16
5.50	5.50	99.00	7.58	0.57	6.39	448.70
5.60	5.60	100.80	7.44	0.55	6.46	455.54
5.70	5.70	102.60	7.31	0.54	6.53	462.67
5.80	5.80	104.40	7.18	0.53	6.60	470.09
5.90	5.90	106.20	7.06	0.51	6.67	477.78
6.00	6.00	108.00	6.94	0.50	6.75	485.75
6.10	6.10	109.80	6.83	0.49	6.82	493.99
6.20	6.20	111.60	6.72	0.48	6.90	502.49
6.30	6.30	113.40	6.61	0.46	6.98	511.26
6.40	6.40	115.20	6.51	0.45	7.06	520.28
6.50	6.50	117.00	6.41	0.44	7.14	529.56
6.60	6.60	118.80	6.31	0.43	7.22	539.08
6.70	6.70	120.60	6.22	0.42	7.30	548.86
6.80	6.80	122.40	6.13	0.41	7.38	558.88
6.90	6.90	124.20	6.04	0.41	7.47	569.14
7.00	7.00	126.00	5.95	0.40	7.55	579.64
7.10	7.10	127.80	5.87	0.39	7.63	590.38
7.20	7.20	129.60	5.79	0.38	7.72	601.35
7.30	7.30	131.40	5.71	0.37	7.81	612.55
7.40	7.40	133.20	5.63	0.36	7.89	623.99
7.50	7.50	135.00	5.56	0.36	7.98	635.65
7.60	7.60	137.50	5.45	0.41	8.06	646.92
7.70	7.70	140.00	5.36	0.40	8.15	658.53
7.80	7.80	142.50	5.26	0.39	8.23	670.46
7.90	7.90	145.00	5.17	0.38	8.32	682.72
8.00	8.00	147.50	5.08	0.37	8.40	695.31
8.10	8.10	150.00	5.00	0.36	8.49	708.21
8.20	8.20	152.50	4.92	0.35	8.58	721.42
8.30	8.30	155.00	4.84	0.34	8.66	734.95
8.40	8.40	157.50	4.76	0.33	8.75	748.79
8.50	8.50	160.00	4.69	0.33	8.84	762.93
8.60	8.60	162.50	4.62	0.32	8.93	777.38
8.70	8.70	165.00	4.55	0.31	9.02	792.12
8.80	8.80	167.50	4.48	0.30	9.11	807.17
8.90	8.90	170.00	4.41	0.30	9.20	822.51
9.00	9.00	172.50	4.35	0.29	9.29	838.14
9.10	9.10	175.00	4.29	0.29	9.39	854.07
9.20	9.20	177.50	4.23	0.28	9.48	870.29
9.30	9.30	180.00	4.17	0.27	9.57	886.80
9.40	9.40	182.50	4.11	0.27	9.66	903.60
9.50	9.50	185.00	4.05	0.26	9.76	920.68
9.60	9.60	187.50	4.00	0.26	9.85	938.04
9.70	9.70	190.00	3.95	0.25	9.94	955.69
9.80	9.80	192.50	3.90	0.25	10.04	973.62
9.90	9.90	195.00	3.85	0.24	10.13	991.83
10.00	10.00	197.50	3.80	0.24	10.22	1010.33
10.10	10.10	200.00	3.75	0.23	10.32	1029.10
10.20	10.20	202.50	3.70	0.23	10.41	1048.14
10.30	10.30	205.00	3.66	0.23	10.51	1067.46
10.40	10.40	207.50	3.61	0.22	10.60	1087.06
10.50	10.50	210.00	3.57	0.22	10.70	1106.94
10.60	10.60	212.50	3.53	0.21	10.79	1127.08
10.70	10.70	215.00	3.49	0.21	10.89	1147.50

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10.80	10.80	217.50	3.45	0.21	10.98	1168.19
10.90	10.90	220.00	3.41	0.20	11.08	1189.16
11.00	11.00	222.50	3.37	0.20	11.18	1210.39
11.10	11.10	225.00	3.33	0.20	11.27	1231.89
11.20	11.20	227.50	3.30	0.19	11.37	1253.66
11.30	11.30	230.00	3.26	0.19	11.47	1275.70
11.40	11.40	232.50	3.23	0.19	11.56	1298.01
11.50	11.50	235.00	3.19	0.18	11.66	1320.59
11.60	11.60	237.50	3.16	0.18	11.75	1343.43
11.70	11.70	240.00	3.12	0.18	11.85	1366.54
11.80	11.80	242.50	3.09	0.17	11.95	1389.91
11.90	11.90	245.00	3.06	0.17	12.05	1413.55
12.00	12.00	247.50	3.03	0.17	12.14	1437.46

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SECTION 3 AT DISSI TOR

DISCHARGE = 750.0 CFS

POINT	ELEV	DIST	POINT	ELEV	DIST	POINT	ELEV	DIST
1	12.00	0.00	5	7.50	10.50	9	7.00	30.00
2	7.00	0.00	6	7.50	19.50	10	12.00	30.00
3	0.00	7.00	7	0.00	19.50			
4	0.00	10.50	8	0.00	23.00			

WSEL (FT)	DEPTH INC (FT)	FLOW AREA (SQ FT)	FLOW VEL (FPS)	FROUDE NUM	E (FT)	M (CU FT)
0.10	0.10	0.71	1056.34	592.81	17326.96	24604.18
0.20	0.20	1.44	520.83	208.07	4212.43	12131.35
0.30	0.30	2.19	342.47	112.43	1821.46	7977.01
0.40	0.40	2.96	253.38	72.48	997.30	5902.25
0.50	0.50	3.75	200.00	51.48	621.62	4659.30
0.60	0.60	4.56	164.47	38.87	420.66	3832.24
0.70	0.70	5.39	139.15	30.61	301.35	3242.82
0.80	0.80	6.24	120.19	24.87	225.12	2801.92
0.90	0.90	7.11	105.49	20.68	173.68	2460.03
1.00	1.00	8.00	93.75	17.52	137.48	2187.45
1.10	1.10	8.91	84.18	15.07	111.12	1965.28
1.20	1.20	9.84	76.22	13.13	91.41	1780.91
1.30	1.30	10.79	69.51	11.55	76.32	1625.64
1.40	1.40	11.76	63.78	10.26	64.56	1493.23
1.50	1.50	12.75	58.82	9.18	55.23	1379.11
1.60	1.60	13.76	54.51	8.27	47.73	1279.87
1.70	1.70	14.79	50.71	7.49	41.63	1192.88
1.80	1.80	15.84	47.35	6.83	36.61	1116.12
1.90	1.90	16.91	44.35	6.25	32.45	1047.98
2.00	2.00	18.00	41.67	5.74	28.96	987.16
2.10	2.10	19.11	39.25	5.29	26.02	932.65
2.20	2.20	20.24	37.06	4.90	23.52	883.58
2.30	2.30	21.39	35.06	4.55	21.39	839.26
2.40	2.40	22.56	33.24	4.24	19.56	799.10
2.50	2.50	23.75	31.58	3.96	17.98	762.62
2.60	2.60	24.96	30.05	3.70	16.62	729.40
2.70	2.70	26.19	28.64	3.47	15.43	699.08
2.80	2.80	27.44	27.33	3.26	14.40	671.38
2.90	2.90	28.71	26.12	3.07	13.50	646.03
3.00	3.00	30.00	25.00	2.90	12.70	622.80
3.10	3.10	31.31	23.95	2.74	12.01	601.50
3.20	3.20	32.64	22.98	2.59	11.40	581.96
3.30	3.30	33.99	22.07	2.46	10.86	564.04
3.40	3.40	35.36	21.21	2.34	10.39	547.59
3.50	3.50	36.75	20.41	2.22	9.97	532.51
3.60	3.60	38.16	19.65	2.11	9.60	518.69
3.70	3.70	39.59	18.94	2.01	9.27	506.05
3.80	3.80	41.04	18.27	1.92	8.99	494.49
3.90	3.90	42.51	17.64	1.83	8.73	483.95
4.00	4.00	44.00	17.05	1.75	8.51	474.35
4.10	4.10	45.51	16.48	1.68	8.32	465.66
4.20	4.20	47.04	15.94	1.61	8.15	457.80
4.30	4.30	48.59	15.44	1.54	8.00	450.73
4.40	4.40	50.16	14.95	1.48	7.87	444.42
4.50	4.50	51.75	14.49	1.42	7.76	438.81
4.60	4.60	53.36	14.06	1.36	7.67	433.88
4.70	4.70	54.99	13.64	1.31	7.59	429.60
4.80	4.80	56.64	13.24	1.26	7.52	425.92

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4.90	4.90	58.31	12.86	1.22	7.[illegible]	422.84
5.00	5.00	60.[illegible]	12.50	1.17	[illegible]	420.32
5.10	5.10	61.7[illegible]	12.15	1.13	[illegible].39	418.33
5.20	5.20	63.44	11.82	1.09	7.37	416.87
5.30	5.30	65.19	11.50	1.05	7.36	415.91
5.40	5.40	66.96	11.20	1.02	7.35	415.43
5.50	5.50	68.75	10.91	0.98	7.35	415.43
5.60	5.60	70.56	10.63	0.95	7.35	415.87
5.70	5.70	72.39	10.36	0.92	7.37	416.76
5.80	5.80	74.24	10.10	0.89	7.38	418.08
5.90	5.90	76.11	9.85	0.86	7.41	419.82
6.00	6.00	78.00	9.62	0.84	7.44	421.96
6.10	6.10	79.91	9.39	0.81	7.47	424.50
6.20	6.20	81.84	9.16	0.79	7.50	427.43
6.30	6.30	83.79	8.95	0.76	7.54	430.75
6.40	6.40	85.76	8.75	0.74	7.59	434.44
6.50	6.50	87.75	8.55	0.72	7.63	438.49
6.60	6.60	89.76	8.36	0.70	7.68	442.91
6.70	6.70	91.79	8.17	0.68	7.74	447.68
6.80	6.80	93.84	7.99	0.66	7.79	452.81
6.90	6.90	95.91	7.82	0.64	7.85	458.28
7.00	7.00	98.00	7.65	0.62	7.91	464.09
7.10	7.10	100.10	7.49	0.60	7.97	470.25
7.20	7.20	102.20	7.34	0.59	8.04	476.78
7.30	7.30	104.30	7.19	0.57	8.10	483.67
7.40	7.40	106.40	7.05	0.55	8.17	490.89
7.50	7.50	108.50	6.91	0.54	8.24	498.46
7.60	7.60	111.50	6.73	0.61	8.30	505.13
7.70	7.70	114.50	6.55	0.59	8.37	512.33
7.80	7.80	117.50	6.38	0.57	8.43	520.03
7.90	7.90	120.50	6.22	0.55	8.50	528.23
8.00	8.00	123.50	6.07	0.53	8.57	536.91
8.10	8.10	126.50	5.93	0.51	8.65	546.05
8.20	8.20	129.50	5.79	0.49	8.72	555.65
8.30	8.30	132.50	5.66	0.47	8.80	565.70
8.40	8.40	135.50	5.54	0.46	8.88	576.18
8.50	8.50	138.50	5.42	0.44	8.96	587.09
8.60	8.60	141.50	5.30	0.43	9.04	598.41
8.70	8.70	144.50	5.19	0.42	9.12	610.15
8.80	8.80	147.50	5.08	0.40	9.20	622.29
8.90	8.90	150.50	4.98	0.39	9.29	634.83
9.00	9.00	153.50	4.89	0.38	9.37	647.76
9.10	9.10	156.50	4.79	0.37	9.46	661.08
9.20	9.20	159.50	4.70	0.36	9.54	674.78
9.30	9.30	162.50	4.62	0.35	9.63	688.86
9.40	9.40	165.50	4.53	0.34	9.72	703.31
9.50	9.50	168.50	4.45	0.33	9.81	718.13
9.60	9.60	171.50	4.37	0.32	9.90	733.32
9.70	9.70	174.50	4.30	0.31	9.99	748.87
9.80	9.80	177.50	4.23	0.31	10.08	764.78
9.90	9.90	180.50	4.16	0.30	10.17	781.04
10.00	10.00	183.50	4.09	0.29	10.26	797.66
10.10	10.10	186.50	4.02	0.28	10.35	814.63
10.20	10.20	189.50	3.96	0.28	10.44	831.94
10.30	10.30	192.50	3.90	0.27	10.54	849.61
10.40	10.40	195.50	3.84	0.26	10.63	867.61
10.50	10.50	198.50	3.78	0.26	10.72	885.96
10.60	10.60	201.50	3.72	0.25	10.82	904.65
10.70	10.70	204.50	3.67	0.25	10.91	923.68
10.80	10.80	207.50	3.61	0.24	11.00	943.05
10.90	10.90	210.50	3.56	0.24	11.10	962.75
11.00	11.00	213.50	3.51	0.23	11.19	982.78
11.10	11.10	216.50	3.46	0.23	11.29	1003.15
11.20	11.20	219.50	3.42	0.22	11.38	1023.84

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(11) of 11

11.30	11.30	222	3.37	0.22	.48	1044.87
11.40	11.40	225 0	3.33	0.21	.57	1066.23
11.50	11.50	228.50	3.28	0.21	11.67	1087.91
11.60	11.60	231.50	3.24	0.21	11.76	1109.92
11.70	11.70	234.50	3.20	0.20	11.86	1132.25
11.80	11.80	237.50	3.16	0.20	11.95	1154.91
11.90	11.90	240.50	3.12	0.19	12.05	1177.90
12.00	12.00	243.50	3.08	0.19	12.15	1201.20

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THIS RUN EXECUTED 25-OCT-90 09:21:42

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED APR. 1980
  ERROR CORR -  01,02,03,04
  MODIFICATION -  50,51,52,53,54
**************************************************

T1                OCTOBER 22, 1990
T2             HEC2 ANALYSIS OF LOTS 29 - 32
T3                  FOR TOM MANN

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       0.       2.        0.        1. -1.000000      0.00      0.0       0.     69.100     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     -1.000     0.000    -1.000     0.000     0.000     0.000    -1.000     0.000     0.000     0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

     38.000     1.000     8.000     4.000     2.000    13.000    14.000    15.000    26.000    53.000


     54.000    42.000    39.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC       0.040     0.040     0.035     0.100     0.300     0.000     0.000     0.000     0.000     0.000
QT       1.000   750.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

X1      96.000    18.000    70.500   101.000    10.000    10.000    10.000     0.000     0.000     0.000
GR      67.200     0.000    67.000    30.000    66.700    48.000    67.000    57.000    68.000    68.500
GR      68.500    70.500    63.100    77.500    63.000    81.500    70.600    81.600    70.600    90.400
GR      63.100    90.500    62.900    93.500    68.200   101.000    68.000   103.000    67.000   108.000
GR      66.500   118.000    67.000   129.000    67.500   143.000     0.000     0.000     0.000     0.000

X1     100.000    14.000    69.500   102.500    38.000    45.000    40.000     0.000     0.000     0.000
X5       1.000    66.950     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
GR      66.600     0.000    66.000    59.000    66.000    63.000    67.000    68.000    67.200    69.500
GR      67.700    71.000    62.700    78.000    62.800    94.000    67.600   101.000    67.300   102.500
GR      67.000   104.500    66.300   123.000    67.000   135.000    67.300   142.000     0.000     0.000
NC       0.040     0.040     0.035     0.100     0.300     0.000     0.000     0.000     0.000     0.000

X1     140.000    20.000    63.000    85.000    45.000    40.000    40.000     0.000     0.000     0.000
X5       1.000    64.290     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
GR      65.300     0.000    65.000    21.000    64.000    34.000    63.000    40.500    62.900    42.500
GR      63.000    44.000    64.000    53.000    64.000    56.000    63.000    63.000    62.000    65.500
GR      61.000    67.500    60.000    69.000    59.700    74.500    60.000    79.500    61.000    82.000
GR      62.000    83.500    63.000    85.000    64.000    86.000    65.000    87.500    65.400   119.000
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X1	180.000	13.000	36.000	68.500	41.000	40.000	40.000	0.000	0.000	0.000
GR	63.300	0.000	63.000	9.500	62.000	31.000	61.000	36.000	60.000	37.500
GR	59.000	47.000	58.000	53.500	59.000	60.000	60.000	65.000	61.000	67.000
GR	62.000	68.000	63.000	68.500	63.300	104.000	0.000	0.000	0.000	0.000
X1	220.000	11.000	34.000	62.000	40.000	41.000	40.000	0.000	0.000	0.000
GR	61.200	0.000	61.000	6.000	60.000	24.000	59.000	34.000	58.000	41.000
GR	57.900	44.500	58.000	48.500	59.000	56.000	60.000	58.500	61.000	62.000
GR	61.100	96.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	260.000	12.000	74.000	109.000	40.000	40.000	40.000	0.000	0.000	0.000
GR	62.000	0.000	61.000	7.000	60.000	15.000	59.500	30.500	59.000	53.000
GR	58.000	74.000	57.000	90.000	56.800	95.500	57.000	100.000	58.000	109.000
GR	59.000	127.000	59.500	178.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	300.000	13.000	54.000	102.000	41.000	38.000	40.000	0.000	0.000	0.000
GR	60.400	0.000	60.000	5.000	59.000	9.000	58.000	11.500	57.500	35.000
GR	57.000	54.000	56.000	69.000	55.500	82.500	56.000	94.000	57.000	102.000
GR	57.500	123.000	58.000	163.000	58.100	184.000	0.000	0.000	0.000	0.000
X1	340.000	12.000	48.000	85.000	47.000	28.000	40.000	0.000	0.000	0.000
GR	58.600	0.000	58.000	5.000	57.000	7.000	56.000	9.000	55.500	33.000
GR	55.000	48.000	54.200	68.000	55.000	85.000	56.000	110.000	56.500	132.000
GR	57.000	153.000	57.100	160.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	380.000	12.000	50.000	87.000	38.000	43.000	40.000	0.000	0.000	0.000
GR	55.900	0.000	55.000	3.500	54.000	5.500	53.200	10.000	53.400	50.000
GR	53.000	58.500	52.700	70.000	53.000	76.000	54.000	87.000	54.500	105.000
GR	55.000	117.000	56.000	131.000	56.400	156.000	0.000	0.000	0.000	0.000
X1	420.000	14.000	72.000	100.000	39.000	43.000	40.000	0.000	0.000	0.000
GR	53.800	0.000	53.000	3.000	52.000	7.500	51.400	17.000	52.000	30.000
GR	52.200	48.000	52.200	72.000	52.000	73.000	51.300	82.000	52.000	91.000
GR	53.000	100.000	54.000	120.000	55.000	135.000	55.500	154.000	0.000	0.000
X1	460.000	16.000	75.000	93.000	38.000	42.000	40.000	0.000	0.000	0.000
GR	51.500	0.000	51.000	6.000	50.000	9.000	49.800	19.000	50.000	23.500
GR	50.900	40.000	50.900	56.000	50.300	75.000	50.000	76.000	49.900	83.500
GR	50.000	90.000	50.500	93.000	51.000	102.500	52.000	111.000	53.000	118.500
GR	53.400	145.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	500.000	13.000	60.000	109.000	40.000	41.000	40.000	0.000	0.000	0.000
GR	50.300	0.000	50.000	3.500	49.000	14.000	48.700	20.000	49.000	29.000
GR	49.400	41.000	49.000	60.000	48.500	76.000	48.400	84.000	49.000	89.000
GR	50.000	97.000	51.000	109.000	51.300	143.000	0.000	0.000	0.000	0.000
X1	540.000	11.000	59.000	90.000	38.000	41.000	40.000	0.000	0.000	0.000
GR	48.900	0.000	48.000	11.000	47.500	21.000	47.900	43.000	47.500	59.000
GR	47.000	75.000	46.900	80.000	47.000	84.000	48.000	90.000	49.000	102.000
GR	49.400	143.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	580.000	8.000	60.000	104.000	40.000	40.000	40.000	0.000	0.000	0.000
GR	47.500	0.000	47.000	12.000	46.400	19.000	46.300	46.000	46.000	60.000
GR	45.500	77.000	46.000	104.000	47.000	142.000	0.000	0.000	0.000	0.000
X1	620.000	9.000	43.000	100.000	40.000	39.000	40.000	0.000	0.000	0.000
GR	46.400	0.000	46.000	5.000	45.000	12.500	44.500	43.000	44.100	60.000
GR	44.100	70.000	44.300	100.000	44.500	117.000	45.000	165.000	0.000	0.000
X1	660.000	9.000	28.000	74.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	45.100	0.000	45.000	1.000	44.000	7.000	43.500	10.000	43.000	28.000
GR	42.700	53.000	43.000	74.000	43.500	127.000	43.700	157.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CRITICAL DEPTH TO BE CALCULATED AT ALL CROSS SECTIONS

CCHV= 0.100 CEHV= 0.300
*SECNO 90.000

3265 DIVIDED FLOW

3280 CROSS SECTION 90.00 EXTENDED 0.59 FEET

3720 CRITICAL DEPTH ASSUMED

90.00	4.89	67.79	67.79	69.10	68.37	0.58	0.00	0.00	68.50
750.	169.	468.	113.	50.	65.	31.	0.	0.	68.20
0.00	3.40	7.22	3.64	0.040	0.035	0.040	0.000	62.90	0.00
0.011584	0.	0.	0.	0	12	0	0.00	125.18	0.00

*SECNO 100.000
WATER EL=X5 CARD= 66.950

3265 DIVIDED FLOW

3280 CROSS SECTION 100.00 EXTENDED 0.30 FEET

100.00	4.20	66.90	66.95	0.00	67.60	0.69	0.09	0.01	67.20
750.	90.	649.	11.	41.	91.	8.	0.	0.	67.30
0.00	2.18	7.13	1.35	0.040	0.035	0.040	0.032	62.70	0.00
0.006543	10.	10.	10.	0	12	0	0.00	121.71	0.00

CCHV= 0.100 CEHV= 0.300
*SECNO 140.000
WATER EL=X5 CARD= 64.290

140.00	4.59	64.29	64.29	0.00	65.34	1.05	0.29	0.04	63.00
750.	72.	676.	2.	24.	79.	1.	0.	0.	63.00
0.00	3.00	8.59	2.12	0.040	0.035	0.040	0.034	59.70	30.23
0.008199	38.	40.	45.	0	8	0	0.00	56.21	0.00

*SECNO 180.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTH	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
3301 HV CHANGED MORE THAN HVINS									
180.00	2.78	60.78	61.84	0.00	64.36	3.58	0.73	0.25	61.00
750.	0.	750.	0.	0.	49.	0.	0.	0.	63.00
0.00	0.00	15.18	0.00	0.040	0.035	0.040	0.034	58.00	36.32
0.068520	45.	40.	40.	5	15	0	0.00	30.25	0.00
*SECNO 220.000									
3301 HV CHANGED MORE THAN HVINS									
220.00	3.00	60.90	61.41	0.00	62.35	1.45	1.37	0.64	59.00
750.	115.	635.	0.	21.	62.	0.	0.	0.	61.00
0.00	5.42	10.26	0.00	0.040	0.035	0.040	0.034	57.90	7.80
0.020417	42.	40.	40.	5	11	0	0.00	53.85	0.00
*SECNO 260.000									
3301 HV CHANGED MORE THAN HVINS									
260.00	2.09	58.89	59.65	0.00	61.08	2.20	1.19	0.07	58.00
750.	39.	678.	33.	8.	55.	7.	0.	0.	58.00
0.00	4.71	12.42	4.71	0.040	0.035	0.040	0.034	56.80	55.36
0.047478	40.	40.	41.	5	12	0	0.00	69.63	0.00
*SECNO 300.000									
3301 HV CHANGED MORE THAN HVINS									
300.00	2.02	57.52	58.11	0.00	59.20	1.68	1.73	0.16	57.00
750.	16.	717.	17.	5.	68.	6.	0.	0.	57.00
0.01	3.07	10.61	3.07	0.040	0.035	0.040	0.034	55.50	34.18
0.039711	40.	40.	40.	5	11	0	0.00	90.20	0.00
*SECNO 340.000									
340.00	1.86	56.06	56.52	0.00	57.56	1.50	1.50	0.05	55.00
750.	101.	581.	68.	19.	54.	14.	0.	0.	55.00
0.01	5.22	10.81	4.94	0.040	0.035	0.040	0.034	54.20	8.90
0.039503	41.	40.	38.	6	11	0	0.00	103.38	0.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTH	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
*SECNO 380.000									
380.00	1.53	54.23	54.66	0.00	55.63	1.40	1.90	0.03	53.40
750.	320.	428.	2.	40.	41.	1.	1.	0.	54.00
0.01	8.03	10.49	2.01	0.040	0.035	0.040	0.034	52.70	5.05
0.053707	47.	40.	28.	7	8	0	0.00	90.08	0.00
*SECNO 420.000									
3301 HV CHANGED MORE THAN HVINS									
420.00	1.77	53.07	53.24	0.00	53.90	0.83	1.56	0.17	52.20
750.	495.	255.	0.	72.	32.	0.	1.	1.	53.00
0.01	6.91	8.08	0.07	0.040	0.035	0.040	0.034	51.30	2.75
0.031068	38.	40.	43.	4	11	0	0.00	98.60	0.00
*SECNO 460.000									
460.00	1.58	51.38	51.69	0.00	52.49	1.11	1.38	0.03	50.30
750.	460.	256.	34.	63.	25.	7.	1.	1.	50.50
0.01	7.36	10.42	5.16	0.040	0.035	0.040	0.034	49.80	1.48
0.039993	39.	40.	43.	6	8	0	0.00	104.21	0.00
*SECNO 500.000									
500.00	1.69	50.09	50.34	0.00	51.04	0.95	1.40	0.05	49.00
750.	346.	404.	0.	53.	46.	0.	1.	1.	51.00
0.01	6.58	8.73	0.00	0.040	0.035	0.040	0.034	48.40	2.43
0.032648	38.	40.	42.	5	11	0	0.00	95.67	0.00
*SECNO 540.000									
540.00	1.78	48.68	48.98	0.00	49.76	1.08	1.27	0.01	47.50
750.	305.	436.	9.	49.	45.	3.	1.	1.	48.00
0.01	6.19	9.60	3.16	0.040	0.035	0.040	0.034	46.90	2.72
0.030796	40.	40.	41.	6	11	0	0.00	95.42	0.00
*SECNO 580.000									
580.00	1.39	46.89	47.29	0.00	48.20	1.31	1.53	0.02	46.00
750.	156.	521.	73.	26.	50.	15.	1.	1.	46.00
0.01	5.91	10.39	4.86	0.040	0.035	0.040	0.034	45.50	13.29
0.050358	38.	40.	41.	6	5	0	0.00	124.52	0.00

25X1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 620.000
3280 CROSS SECTION 620.00 EXTENDED 0.19 FEET

620.00	1.09	45.19	45.47	0.00	46.17	0.98	1.93	0.10	44.50
750.	62.	500.	188.	13.	56.	34.	1.	1.	44.30
0.02	4.58	8.99	5.46	0.040	0.035	0.040	0.034	44.10	11.09
0.046320	40.	40.	40.	6	5	0	0.00	153.91	0.00

*SECNO 660.000
3280 CROSS SECTION 660.00 EXTENDED 0.33 FEET

660.00	1.33	44.03	44.19	0.00	44.71	0.68	1.37	0.09	43.00
750.	74.	420.	256.	15.	54.	54.	1.	1.	43.00
0.02	4.99	7.75	4.73	0.040	0.035	0.040	0.034	42.70	6.83
0.026747	40.	40.	39.	4	11	0	0.00	150.17	0.00

THIS RUN EXECUTED 25-OCT-90 09:21:48

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED APR. 1980
  ERROR CORR -  01,02,03,04
  MODIFICATION -  50,51,52,53,54
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

FOR TOM MAH

SUMMARY PRINTOUT

	SECNO	CWSEL	DEPTH	TOPWID	CRIWS	QLOB	QCH	QROB	VCH	SSTA	ENDST	ELMIN	XLCH
*	90.000	67.79	4.89	125.18	67.79	169.19	467.96	112.85	7.22	0.00	143.00	62.90	0.00
*	100.000	66.90	4.20	121.71	66.95	89.98	649.27	10.74	7.13	0.00	133.35	62.70	10.00
*	140.000	64.29	4.59	56.21	64.29	71.74	676.46	1.80	8.59	30.23	86.44	59.70	40.00
	180.000	60.78	2.78	30.25	61.84	0.00	750.00	0.00	15.18	36.32	66.57	58.00	40.00
	220.000	60.90	3.00	53.85	61.41	115.38	634.62	0.00	10.26	7.80	61.65	57.90	40.00
	260.000	58.89	2.09	69.63	59.65	38.96	677.66	33.38	12.42	55.36	124.98	56.80	40.00
	300.000	57.52	2.02	90.20	58.11	15.60	717.15	17.25	10.61	34.18	124.39	55.50	40.00
	340.000	56.06	1.86	103.38	56.52	100.68	580.83	68.49	10.81	8.90	112.28	54.20	40.00
	380.000	54.23	1.53	90.08	54.66	320.47	427.68	1.85	10.49	5.05	95.13	52.70	40.00
	420.000	53.07	1.77	98.60	53.24	494.66	255.34	0.00	8.08	2.75	101.35	51.30	40.00
	460.000	51.38	1.58	104.21	51.69	460.28	255.93	33.78	10.42	1.48	105.70	49.80	40.00
	500.000	50.09	1.69	95.67	50.34	345.60	404.39	0.00	8.73	2.43	98.10	48.40	40.00
	540.000	48.68	1.78	95.42	48.98	304.95	436.34	8.71	9.60	2.72	98.13	46.90	40.00
	580.000	46.89	1.39	124.52	47.29	155.70	521.24	73.06	10.39	13.29	137.81	45.50	40.00
	620.000	45.19	1.09	153.91	45.47	61.84	500.02	188.13	8.99	11.09	165.00	44.10	40.00
	660.000	44.03	1.33	150.17	44.19	74.13	419.81	256.05	7.75	6.83	157.00	42.70	40.00

SUMMARY OF ERRORS

CAUTION SECNO= 90.000 PROFILE= 1 CRITICAL DEPTH ASSUMED

NOTE SECNO= 100.000 PROFILE= 1 WSEL BASED ON X5 CARD

NOTE SECNO= 140.000 PROFILE= 1 WSEL BASED ON X5 CARD

Analysis of Riprap Channel from Back of Dissipator wall to end of Riprap
Intersection of Modesto and Tennyson
Trapezoidal Channel

Flow= 750
N = 0.035
Sl= 0.03

Bottom= 16.5
SS = 1

y	A	P	R	C2	v	v2/2g	E	V2 C2*R	MV2 MC2*r	SF	DE	DX	X
ft	sq. ft.	ft	ft	sft	fps	ft	ft				ft	ft	ft
7.10	192.41	36.58	5.26	3151.6	3.8979	0.2359	7.3359	0.0009					0.0
									0.00094	0.02906	-0.091	-3.1	
7.00	189.00	36.30	5.21	3141	3.9683	0.2445	7.2445	0.001					-3.1
									0.00101	0.028986	-0.182	-6.3	
6.80	182.24	35.73	5.10	3119.4	4.1155	0.263	7.063	0.0011					-9.4
									0.00109	0.028907	-0.090	-3.1	

25X

Analysis of Channel downstream from end of Riprap Channel in Energy Dissipator
Intersection of Modesto and Tennyson
Trapezoidal Channel

Flow= 750 Bottom= 16.5
N = 0.04 SS = 1
Sl= 0.063

y	A	P	R	C2	v	v2/2g	E	V2 C2*R	MV2 MC2*r	SF	DE	DX	X
ft	sq. ft.	ft	ft	sft	fps	ft	ft				ft	ft	ft
6.80	182.24	35.73	5.10	2388.3	4.115	0.2630	7.0630	0.0014					0.0
									0.00147	0.061534	-0.180	-2.9	
6.60	175.56	35.17	4.99	2371.3	4.272	0.2834	6.8834	0.0015					-2.9
									0.00163	0.061372	-0.177	-2.9	
6.40	168.96	34.60	4.88	2353.9	4.439	0.3060	6.7060	0.0017					-5.8
									0.00181	0.061187	-0.175	-2.9	
6.20	162.44	34.04	4.77	2336.0	4.617	0.3310	6.5310	0.0019					-8.7
									0.00203	0.060974	-0.172	-2.8	
6.00	156.00	33.47	4.66	2317.7	4.808	0.3589	6.3589	0.0021					-11.5
									0.00227	0.060729	-0.169	-2.8	
5.80	149.64	32.90	4.55	2298.8	5.012	0.3901	6.1901	0.0024					-14.3
									0.00256	0.060444	-0.165	-2.7	
5.60	143.36	32.34	4.43	2279.3	5.232	0.4250	6.0250	0.0027					-17.0
									0.00289	0.060113	-0.161	-2.7	
5.40	137.16	31.77	4.32	2259.2	5.468	0.4643	5.8643	0.0031					-19.7
									0.00328	0.059724	-0.156	-2.6	
5.20	131.04	31.21	4.20	2238.4	5.723	0.5087	5.7087	0.0035					-22.3
									0.00373	0.059267	-0.150	-2.5	
5.00	125.00	30.64	4.08	2217.0	6.000	0.5590	5.5590	0.004					-24.8
									0.00428	0.058725	-0.143	-2.4	
4.80	119.04	30.08	3.96	2194.8	6.300	0.6164	5.4164	0.0046					-27.2
									0.00492	0.058078	-0.134	-2.3	
4.60	113.16	29.51	3.83	2171.7	6.628	0.6821	5.2821	0.0053					-29.5
									0.0057	0.057299	-0.124	-2.2	
4.40	107.36	28.95	3.71	2147.8	6.986	0.7578	5.1578	0.0061					-31.7
									0.00664	0.056356	-0.112	-2.0	
4.20	101.64	28.38	3.58	2122.9	7.379	0.8455	5.0455	0.0072					-33.7
									0.0078	0.055203	-0.098	-1.8	
4.00	96.00	27.81	3.45	2096.9	7.813	0.9478	4.9478	0.0084					-35.5
									0.00922	0.053778	-0.080	-1.5	
3.80	90.44	27.25	3.32	2069.7	8.293	1.0679	4.8679	0.01					-37.0
									0.011	0.052	-0.058	-1.1	
3.60	84.96	26.68	3.18	2041.3	8.828	1.2101	4.8101	0.012					-38.1
									0.01325	0.049754	-0.030	-0.6	
3.40	79.56	26.12	3.05	2011.4	9.427	1.3799	4.7799	0.0145					-38.7
									0.01612	0.046878	0.005	0.1	
3.20	74.24	25.55	2.91	1979.9	10.102	1.5847	4.7847	0.0177					-38.6

0000 0000 1479

LAW OFFICES of SYLVAIN SEGAL

2700 San Pedro Drive NE • (505) 888-8888 • Albuquerque, New Mexico 87110

December 11, 1990

RECEIVED
DEC 18 1990
HYDROLOGY DIVISION

Gilbert Aldez
Bernalillo County Flood Plain Administrator

HAND DELIVERED

Re: Building Permits 90-792 and 793 (12505 and 12509 Mondesto NE)

Dear Mr. Aldez:

Frank "Skip" Hines has asked me to write this letter to you concerning the proposed drainage covenant which Bernalillo County appears to require to permit construction on the above lots. I do not believe that a covenant such as you are now requesting was contemplated at the meeting which I attended with Mr. Hines in your offices at the time the discussion was had concerning these properties. In any event, the execution of the drainage covenant would make these properties unmarketable.

In behalf of Mr. Hines, I respectfully request that you either eliminate the need for the drainage covenant or permit its modification in such a manner as would make it feasible to use the lots for residential purposes.

Very truly yours,

Sylvain Segal
mp

25×10

DRAINAGE COVENANT

This Drainage Covenant, between [state the name of the present real property owner exactly as shown on the real estate document conveying title to the present owner and state the legal status of the owner, for example, "single person," "husband and wife," "corporation of the State of X," "partnership"]: _____ ("Owner") [his, her, their, or its] heirs, executors, successors, assigns and transferees, whose address is _____, and the County of Bernalillo, a New Mexico political subdivision ("County"), whose address is One Civic Plaza, Albuquerque, New Mexico 87103, is made in Albuquerque, Bernalillo County, New Mexico and is entered into as of the date Owner signs this Easement.

1. Recital. Owner is the owner of certain real property located at [give general description, for instance, subdivision, lot and block or street address:] _____ in Bernalillo County, New Mexico (the "Property").

Pursuant to County ordinances, regulations and other applicable laws, the Owner is required to construct and maintain certain drainage facilities on the Property, and the parties wish to enter into this agreement to establish the obligations and responsibilities of the parties.

2. Description and Construction of Drainage Facilities. Owner shall construct the following "Drainage Facility" within the Property at Owner's sole expense in accordance with the standards, plans and specifications approved by the County: _____ _____ _____.

The Drainage Facility is more particularly described in the attached Exhibit A. The Owner shall not permit the Drainage Facility to constitute a hazard to the health or safety of the general public.

3. Maintenance of Drainage Facility. The Owner shall maintain the Drainage Facility at Owner's cost in accordance with the approved Drainage Report and plans.

4. County's Right of Entry. The County has the right to enter upon the Property at any time and perform whatever inspection of the Drainage Facility it deems appropriate, without liability to the Owner.

5. Demand for Removal Construction or Repair. The County may send written notice ("Notice") to the Owner requiring the Owner to construct, remove or repair the Drainage Facility within _____ days ("Deadline") of receipt of the Notice, as provided in Section 11, and the Owner shall comply promptly with the requirements of the Notice. The Owner shall perform all required work by the Deadline, at Owner's sole expense.

6. Failure to Perform by Owner and Emergency Work by County. If the Owner fails to comply with the terms of the Notice by the Deadline, or if the County determines that an emergency condition exists, the County may perform the work itself. The County then may assess the Owner for the cost of the work and for any other expenses or damages which result from Owner's failure to perform. The Owner agrees promptly to pay the County the amount assessed. If the Owner fails to pay the County within thirty (30) days after the County gives the Owner written notice of the amount due, the County may impose a lien against Owner's Property for the total resulting amount.

7. Liability of County for Repair after Notice or as a Result of Emergency. The County shall not be liable to the Owner for any damages resulting from the County's repair, removal or maintenance following notice to the Owner as required in this agreement or in an emergency unless the damages are the result of the reckless conduct or gross negligence of the County.

8. Indemnification. As a part of the consideration for this grant, subject to the provisions of the New Mexico Tort Claims Act and all other applicable New Mexico laws, the County agrees to save Owner harmless from any and all liability arising from the County's negligent use of the Drainage Facility. The County does not agree to save Owner harmless from any liability which may arise from Owner's use or misuse of the Drainage Facility and the Property.

9. Cancellation of Agreement and Release of Covenant. This agreement may be canceled and Owner's covenants released by the County by the County's mailing to the Owner notice of the County's intention to record a Cancellation and Release with the Bernalillo County Clerk. The Cancellation and Release shall be effective thirty (30) days after the date of mailing the notice to the User unless a later date is stated in the notice or in the Cancellation and Release. After the effective date, the County will record the Cancellation and Release with the Bernalillo County Clerk.

10. Assessment. Nothing in this agreement shall be construed to relieve the Owner, his heirs, assigns and successors from an assessment against Owner's Property for improvements to the Property under a duly authorized and approved Special Assessment District or applicable law. The Parties specifically agree that the value of the (Drainage Facility) will not reduce the amount assessed by the County.

11. Notice. For purposes of giving formal written notice to the Owner, Owner's address is:

_____

_____

_____

Notice may be given to the Owner either in person or by mailing the notice by regular U.S. mail, postage paid. Notice will be considered to have been received by the Owner within six (6) days after the notice is mailed if there is no actual evidence of receipt. The Owner may change Owner's address by giving written notice of the change by certified mail, return receipt requested, to the Bernalillo County Public Works Department, 2400 Broadway S.E., Albuquerque, New Mexico 87102.

12. Term. This agreement shall continue until terminated by the County pursuant to Section 9 above.

13. Binding on Owner's Property. The covenants and obligations of the Owner set forth herein shall be binding on Owner, his heirs, assigns and successors and on Owner's Property and shall constitute covenants running the Owner's Property until released by the County.

14. Entire Agreement. This agreement contains the entire agreement of the parties and supersedes any and all other agreements or understandings, oral or written, whether previous to the execution hereof or contemporaneous herewith.

15. Changes to Agreement. Changes to this agreement are not binding unless made in writing, signed by both parties.

16. Construction and Severability. If any part of this agreement is held to be invalid or unenforceable, the remainder of the agreement will remain valid and enforceable if the remainder is reasonably capable of completion.

17. Captions. The captions to the sections or paragraphs of this agreement are not part of this agreement and will not affect the meaning or construction of any of its provisions.

18. Form Not Changed. Owner agrees that changes to the wording of this form are not binding upon the County unless initialed by the Owner and approved and signed by the County Commission Chairman in writing on this form.

OWNER:

By:_____
Its:_____
Dated:_____

STATE OF _____)
) SS
COUNTY OF _____)

The foregoing instrument was acknowledged before me this _____ day of _____, 19 ____, by [name of person signing:] _____, [title or capacity, for instance, "President" or "Owner":] _____ of [name of the entity which owns the Property if other than the individual signing, for instance, the name of the corporation, partnership, or joint venture:] _____.

My Commission Expires:

_____

_____
Notary Public

COUNTY OF BERNALILLO:

Approved As To Form:

_____
County Attorney

Recommended by:

_____
County Public Works Department

Attest:

_____
County Clerk

BOARD OF COUNTY COMMISSIONERS

_____
Eugene M. Gilbert, Chairman

_____
Albert "Al" Valdez, Vice Chairman

_____
Patricia "Pat" Cassidy, Member

_____
Henry Gabaldon, Member

_____
Jacquelyn K. Schaefer, Member

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FILE COPY

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

December 4, 1990

Tom Mann, P.E.
The Mann Company
811 Dallas Street, NE
Albuquerque, New Mexico 87110

RE: DRAINAGE PLAN FOR LOT 31, BLOCK A, UNIT 1
NORTH ALBUQUERQUE ACRES, RECEIVED NOVEMBER 26, 1990
FOR BUILDING PERMIT (B-22/D8)

Dear Mr. Mann:

Based on the information provided on the referenced submittal received November 26, 1990, listed are some concerns which should be addressed prior to release of the Building Permit.

1. Financial Guarantee requirements for the riprap and filter blanket should be worked out with Bernalillo County.

2. The required maintenance covenant should be secured with Bernalillo County.

3. The required drainage easement should be dedicated to AMAFCA.

4. Identify the easement limits on the plan for both Lots 31 and 32.

Be advised that prior to the release of the building permit for Lot 32, the building pad, finish floor elevation, leach field, and driveway must be shown on the drainage plan. If you should have any questions, please do not hesitate to call me at 768-2650.

Cordially,

Gilbert Aldaz
Floodplain Administrator

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

GA
wp+1975

25×10

0000 0000 1485

THE MANN COMPANY, INC.
811 DALLAS STREET N.E.
ALBUQUERQUE, NEW MEXICO 87110
(505) 266-3555

RECEIVED
NOV 26 1990
HYDROLOGY DIVISION

0022
November 24, 1990

Mr. Gilbert Aldaz, P.E.
Public Works Department
City of Albuquerque
P.O. Box 1293
Albuquerque, New Mexico 87103

Re: Drainage Plan for Lots 31 and 32, Block A, Unit 1, NAA (B-22/D8)

Dear Gilbert:

I received your comments of November 16, 1990. This letter is in response to your comments.

1. The slope protection has been extended to 3 feet below the cut-off wall. Refer to the attached drawing.
2. A slope of 2:1 has been shown on the drawing.
3. A granular filter blanket has been shown on the drawing.
4. The section conforms to the existing grouted rip-rap.
5. A note has been added to the drawing concerning specifications and gradation of filter material.
6. The hydraulic grade line has been added to the drawing.
7. Easements on Lots 31 and 32 will be granted to AMAFCA.
8. The owner of Lot 32 will execute a maintenance covenant with AMAFCA. (County →)
9. The terminus was incorrectly drawn on the last submittal. It has been drawn such that there is protection for the building pad on Lot 31.
10. As per our discussion, the swale has been deleted, therefore, a rundown is not necessary.

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This addresses all of your comments. I look forward to your approval of this project.

Thank you.

Sincerely,

Thomas T. Mann, Jr., P.E.
President

* S. I. A. Agreement needs to be worked out with County and covenant.

* Easement needs to be granted to AMAFCA
→ Prior to B.P. Release.

Per Mtg w/ Bob Fagelsong
Clifford Anderson
Gilbert Aldaz
11/30/90

25×10

0000 0000 1487

DRAINAGE INFORMATION SHEET

Resubmittal

PROJECT TITLE: Lots 21, 20 & 31 North Albuquerque Acres ZONE ATLAS/DRNG. FILE #: B-22/D8

LEGAL DESCRIPTION: Lots 21, 20 & 31 Block A Unit 1 North Albuquerque Acres

CITY ADDRESS: 12409, 12501 & 12509 Modesto NE

ENGINEERING FIRM:	The Mann Company Inc	CONTACT:	Tom Mann
ADDRESS:	8200 Mountain Rd NE #102	PHONE:	266-3557
OWNER:	Skip Hines	CONTACT:	Skip Hines
ADDRESS:	606 Dartmouth NE	PHONE:	1-252-1144
ARCHITECT:	Unknown	CONTACT:	
ADDRESS:		PHONE:	
SURVEYOR:	The Mann Company Inc	CONTACT:	
ADDRESS:		PHONE:	
CONTRACTOR:	Skip Hines	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 _____ (SPECIF

RECEIVED
NOV 26 1990
HYDROLOGY DIVISION

DATE SUBMITTED: 6/6/90 ~~7/3/90~~ 10/29/90 11/26/90

BY: Tom Mann

25×

0000 0000 1488

FILE COPY

BOARD OF COUNTY COMMISSIONERS
HENRY GABALDON, CHAIRMAN
DISTRICT 1
EUGENE M. GILBERT, VICE CHAIRMAN
DISTRICT 3
AL VALDEZ, MEMBER
DISTRICT 2
PATRICIA "PAT" CASSIDY, MEMBER
DISTRICT 4
JACQUELYN SCHAEFER, MEMBER
DISTRICT 5
VICKIE FISHER, COUNTY MANAGER

County of Bernalillo

State of New Mexico

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

ALVIN J. CAMPBELL, SHERIFF
PATRICK J. PADILLA, TREASURER
GLADYS M. DAVIS, CLERK
SAM L. PEREA, ASSESSOR
THOMAS J. MESCALL, PROBATE JUDGE

November 16, 1990

Tom Mann, P.E.
The Mann Company
8200 Mountain Road, NE #102
Albuquerque, New Mexico 87110

RE: DRAINAGE PLAN FOR LOT 31, BLOCK A, UNIT 1, NORTH ALBUQUERQUE ACRES, RECEIVED OCTOBER 29, 1990 FOR BUILDING PERMIT (B-22/D8)

Dear Mr. Mann:

Based on the information provided on the referenced submittal received September 24, 1990, listed are some concerns which should be addressed prior to Building Permit Approval.

1. It appears that the flowline profile shown on Section A is degradating towards the bottom of the existing cutoff-wall; therefore we believe that your proposed slope embankment should extend to 3 feet below the existing cutoff wall.

2. Please specify the cross slope proposed for the grouted riprap section. The maximum slope acceptable for grouted riprap is 2:1, since anything greater could cause the section to overturn and not provide stable riprap.

3. A granular filter blanket is required underneath the grouted riprap section.

4. Is the grouted riprap section sized to handle the velocities from the pipe system?

5. Provide the specifications proposed to be used for the grouted riprap section including the granular filter.

6. Show the hydraulic grade line for the storm drain system on Section A.

7. Please provide the necessary additional drainage easement required to construct the grouted riprap section in Lots 31 and 32, and provide for the 100-year flood zone on these lots.

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8. The lot owner of Lot 32 will need to enter into a maintenance covenant agreement for the grouted riprap section. This covenant is needed so that the owner will recognize his responsibility for maintaining the grouted riprap section. Is Sandia Peak Tram Company currently maintaining the existing outlet structure? We know of no public agency who is maintaining the structure.

9. Does the proposed grouted riprap section extended far enough downstream to protect the building pad on Lot 31? It appears additional scour could take place at the terminus of the riprap section.

10. A rundown from the swale behind the grouted riprap section to the arroyo bottom will be required.

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

Cordially,

Gilbert Aldaz, Floodplain Administrator

Clifford E. Anderson, AMAFCA

Bob Foglesong, Bernalillo County

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wp+1975

25×

0000 0000 1490

THE MANN COMPANY, INC.
811 DALLAS STREET N.E.
ALBUQUERQUE, NEW MEXICO 87110
(505) 266-3555

RECEIVED
OCT 29 1990
HYDROLOGY DIVISION

00221
October 26, 1990

Mr. Gilbert Aldaz, P.E.
Public Works Department
City of Albuquerque
P.O. Box 1293
Albuquerque, New Mexico 87103

Re: Lots 31 and 32 Block A, Unit 1, North Albuquerque Acres

Dear Gilbert:

As per your request, I have prepared calculations showing the water surface elevation in the energy disapator and arroyo in Lots 31 and 32. Attached pease find a copy of the calculations, a profile, a shetch of the flood plain and a revised copy of the grading and drainage plan.

Howard Stone at Bohannan-Huston performed the analysis for me. If you have specific questions concerning the calculations, feel free to contact him directly.

Skip Hines is very anxious to get a building permit, so we would appreciate your review and comments as early as possible. If you have questions of me, do not hesitate to call.

Thank you.

Sincerely,

Thomas T. Mann, Jr., PE/PS
President

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DRAINAGE INFORMATION SHEET

Resubmittal

PROJECT TITLE: Lots 21, 20 & 31 North Albuquerque Acres ZONE ATLAS/DRNG. FILE #: B-22/D8

LEGAL DESCRIPTION: Lots 29, 30 & Block A Unit 1 North Albuquerque Acres

CITY ADDRESS: 12409, 12501 & 12509 Modesto NE

ENGINEERING FIRM: The Mann Company Inc CONTACT: Tom Mann

ADDRESS: 8200 Mountain Rd NE #102 PHONE: 266-3557

OWNER: Skip Hines CONTACT: Skip Hines

ADDRESS: 606 Dartmouth NE PHONE: 1-252-1144

ARCHITECT: Unknown CONTACT:

ADDRESS: PHONE:

SURVEYOR: The Mann Company Inc CONTACT:

ADDRESS: PHONE:

CONTRACTOR: Skip Hines 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)

RECEIVED
OCT 29 1990
HYDROLOGY DIVISION

DATE SUBMITTED: 6/8/90 7/5/90 10/29/90

BY: Tom Mann

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0000 0000 1492

BOHANNAN-HUSTON INC.
COURTYARD I, 7500 JEFFERSON STREET, N.E. ALBUQUERQUE, NM 87109
TEL (505) 823-1000 FAX (505) 821-0892

October 25, 1990

RECEIVED
OCT 29 1990
HYDROLOGY DIVISION

Tom Mann
The Mann Co.
8000 Mountain Rd., NE
Albuquerque, NM 87110

Re: Floodplain Analysis Downstream of Tennyson, North of Modesto, Lots 30-32, Block A, Tract 2 Unit 1 North Albuquerque Acres

Dear Tom:

I am transmitting herewith the results of the 100-yr floodplain analysis for the referenced project. The following is a listing of the information I am enclosing:

- o 1"=40' Limits of 100-yr Flooding Map
- o HEC-2 computer output
- o Energy Dissipator hydraulic analysis
- o Water Surface drawdown calculations
- o Water Surface profile through the reach

On Exhibit A is shown the limits of flooding during the 100-yr storm event. Considering the location of the house on Lot 31, the floodplain is depicted assuming the recommended berm is constructed that would insure runoff would be confined south of the berm, in the arroyo. The elevations of the proposed berm are shown on the profile. Due to the proximity of the house on Lot 31, the berm should be protected with dumped grouted riprap or structural concrete. A cutoff wall should be provided with this berm extending down a minimum of 3 feet below the bottom of the existing arroyo.

This berm should be constructed in lieu of the slope protection that was proposed for the house on Lot 31 in the initial plan. The proposed berm will protect the downstream houses by confining the flow to the existing arroyo.

Based on the momentum balance analysis I performed, the anticipated jump height caused by the energy dissipator is 7.1'. Since the existing the riprap is only 5.4' at this location, it will need to be raised to a height of 9.1' to provide 2' of freeboard. This will provide adequate protection to the house on Lot 31 and to a future residence that could be constructed north of the berm on Lot 32. I then computed a drawdown curve from the energy dissipator to the point where critical depth would occur in the arroyo. This then became the starting point for the HEC-2 run.

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The rest of the analysis depicts the floodplain as calculated by the HEC-2. Should you have any questions or require additional information please call at your earliest convenience.

Sincerely,

Howard C. Stone

Howard C. Stone, P.E.
Water Resources Manager

Enclosures
Job. No. 90286.01

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FILE COPY

BOARD OF COUNTY COMMISSIONERS
HENRY GABALDON, CHAIRMAN
DISTRICT 1
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DISTRICT 2
PATRICIA "PAT" CASSIDY, MEMBER
DISTRICT 4
JACQUELYN SCHAEFER, MEMBER
DISTRICT 5
VICKIE FISHER, COUNTY MANAGER

County of Bernalillo

State of New Mexico

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

ALVIN J. CAMPBELL, SHERIFF
PATRICK J. PADILLA, TREASURER
GLADYS M. DAVIS, CLERK
SAM L. PEREA, ASSESSOR
THOMAS J. MESCALL, PROBATE JUDGE

September 27, 1990

Tom Mann, P.E.
The Mann Company
8200 Mountain Road, NE #102
Albuquerque, New Mexico 87110

RE: DRAINAGE PLAN FOR LOT 31, BLOCK A, UNIT 1, NORTH ALBUQUERQUE ACRES, RECEIVED SEPTEMBER 24, 1990 FOR BUILDING PERMIT (B-22/D8)

Dear Mr. Mann:

Based on the information provided on the referenced submittal received September 24, 1990, listed are some concerns which should be addressed prior to Building Permit Approval.

The concern is that the proposed concrete barrier does not appear to be stable, or thick enough to withstand exposure due to erosion and the resulting soil and water forces. It is not apparent that the barrier can withstand local scour effects. There is no documentation on stability and local scour.

The eastern end of the barrier should extend to at least 50 feet from the channel. If the transition is to be at a sharp angle, then the barrier will need to withstand direct flow forces.

An easement dedicated to AMAFCA will be required to include the erosion barrier.

If you should have any questions, please do not hesitate to call.

Cordially,

Gilbert Aldaz, Floodplain Administrator

FOR
Clifford E. Anderson, AMAFCA

FOR
Bob Fogelsong, Bernalillo County

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m/y w/ Tom Mann - Skip Hines, Cliff Anderson & Gilbert 10/5/90
- will extend wall to existing structure on Lot 32 & future wall connect w/ or the back 50' from easement line
- To existing grouted riprap wall will be reinforced.
- Check to assure wall will be built in easement
- Private maintenance covenant reqd. for Lot 31 reqd. (only if AMAFCA desires)

IF THEY DECIDE TO BUILD ON LOT 32, THEN ENGR MUST ANALYZE OVERFLOW AT EXISTING STRUCTURE, IF NOT APPLICABLE THEN 25' SETBACK MAY BE ACCEPTABLE.

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

September 26, 1990

To: Gilbert Aldaz,
City / County Floodplain Administrator
% City of Albuq, Public Works

Sheet 1 of 1

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

Re: B22-D8, Lot 31, Block A, Tract 2, Unit 1,
North Albuquerque Acres.

AMAFCA has the following comments on the above retevenced plan.

The proposed concrete barrier does not appear to be stable, or thick enough to withstand exposure due to evosion and the resulting soil and water forces. It is not apparent that the barrier can withstand local scour effects. There is no documentation on stability and local scour.

The eastern end of the barrier should extend to at least 50 feet from the channel. If the transition is to be at a sharp angle, the barrier will need to withstand direct flow forces.

Is an easement needed for evosion setback areas?

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DRAINAGE INFORMATION SHEET

Resubmittal

PROJECT TITLE: Lots 29, ~~30~~ 31 North Alb Acres ZONE ATLAS/DRNG. FILE #: B-22/D8

LEGAL DESCRIPTION: Lots 29, ~~30~~ 31 Block A Unit 1 North Albuquerque Acres

CITY ADDRESS: 12409, 12501 & 12509 Modesto NE

ENGINEERING FIRM: The Mann Company Inc CONTACT: Tom Mann

ADDRESS: 8200 Mountain Rd NE #102 PHONE: 266-3557

OWNER: Skip Hines CONTACT: Skip Hines

ADDRESS: 606 Dartmouth NE PHONE: 1-252-1144

ARCHITECT: Unknown CONTACT:

ADDRESS: PHONE:

SURVEYOR: The Mann Company Inc CONTACT:

ADDRESS: PHONE:

CONTRACTOR: Skip Hines 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)

RECEIVED
JUL 5 1990
HYDROLOGY DIVISION

DATE SUBMITTED: ~~6/6/90~~ ~~7/5/90~~ 9/21/90

RECEIVED
SEP 24 1990
HYDROLOGY DIVISION

BY: Tom Mann
Gilbert Alday for

25×10

0000 0000 1497

BOARD OF COUNTY COMMISSIONERS
EUGENE M. GILBERT, CHAIRMAN
DISTRICT 3
ALBERT "AL" VALDEZ, VICE CHAIRMAN
DISTRICT 2
HENRY GABALDON, MEMBER
DISTRICT 1
PATRICIA "PAT" CASSIDY, MEMBER
DISTRICT 4
JACQUELYN SCHAEFER, MEMBER
DISTRICT 5
VICKIE FISHER, COUNTY MANAGER

County of Bernalillo

State of New Mexico

2400 BROADWAY S E
ALBUQUERQUE NEW MEXICO 87102

RECEIVED
SEP 24 1990
HYDROLOGY DIVISION

ALVIN J. CAMPBELL, SHERIFF
PATRICK J. PADILLA, TREASURER
GLADYS M. DAVIS, CLERK
SAM L. PEREA, ASSESSOR
THOMAS J. MESCALL, PROBATE JUDGE

TRANSMITTAL LETTER

TO: Gilbert Aldaz
Floodplain Administrator
Hydrology, City of Alb.

DATE: 8/24/90
PROJECT: PWD 90-42
Lot 31, Blk A, Unit 1, NAA.
FROM: R. Foglesong

We transmit for your:

___approval ___distribution ___information
X review & comment ___record
___use ___other:

the following:

___drawings ___amendment ___correspondence
___specifications ___shop drawing
___change order X other:

Description: Grading & Drainage Plan for Lot 31, Block A, Unit 1 N.A.A. w/ cover letter from Tom Mann.
Remarks:

Copies to:	ENCLOSURES w/	w/o
B. A. Romero, Engineer Manager	___	X
Cliff Anderson, AMAFCA	X	___
Tom Mann	___	X
	___	___

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0000 0000 1498

THE MANN COMPANY, INC.
8200 MOUNTAIN ROAD N.E. SUITE 102
ALBUQUERQUE, NEW MEXICO 87110
(505) 266-3555

RECEIVED
SEP 24 1990
HYDROLOGY DIVISION

RECEIVED
AUG 1990
BERNALILLO COUNTY
PUBLIC WORKS

00221
August 23, 1990

Mr. Robert Fogelson
Bernalillo County Public Works Department
2400 Broadway SE
Albuquerque, New Mexico 87102

Re: Lot 31, Block A, Tract 2, Unit 1, North Albuquerque Acres

Dear Bob:

Transmitted herewith is a solution to Lot 31. Cliff Anderson and I have discussed this. Please route this through Cliff and Gilbert and let me know your collective reaction.

Thank you.

Sincerely,

Thomas T. Mann, Jr. P.E.
President

25×10

0000 0000 1499

BOARD OF COUNTY COMMISSIONERS
EUGENE M. GILBERT, CHAIRMAN
DISTRICT 3
ALBERT "AL" VALDEZ, VICE CHAIRMAN
DISTRICT 2
HENRY GABALDON, MEMBER
DISTRICT 1
PATRICIA "PAT" CASSIDY, MEMBER
DISTRICT 4
JACQUELYN SCHAEFER, MEMBER
DISTRICT 5
VICKIE FISHER, COUNTY MANAGER

County of Bernalillo
State of New Mexico
2400 BROADWAY S.E.
ALBUQUERQUE, NEW MEXICO 87102

ALVIN J. CAMPBELL, SHERIFF
PATRICK J. PADILLA, TREASURER
GLADYS M. DAVIS, CLERK
SAM L. PEREA, ASSESSOR
THOMAS J. MESCALL, PROBATE JUDGE

BERNALILLO COUNTY PUBLIC WORKS DEPARTMENT
MEMORANDUM

TO: Gene Clement, Director Environmental Health
FROM: Robert Fogleson, County Surface Water Hydrologist
DATE: July 26, 1990

SUBJECT: Proposed Location of Liquid Waste System
Lot 30, Blc A, Unit 1, North Alb. Acres
12501 Modesto NE

Based on the information provided by the applicant, and a review of the National Flood Insurance Program's Flood Boundary and Floodway Map, Panel 350002 0005, it appears that the proposed liquid waste system is not located within any designated 100 year flood plains, and is therefore acceptable.

xc: Clifford Anderson, AMAFCA
Gilbert Aldaz, Hydrology, COA

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0000 0000 1500

FILE COPY

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

July 6, 1990

Tom Mann, P.E.
The Mann Company
8200 Mountain Road, NE #102
Albuquerque, New Mexico 87110

RE: REVISED DRAINAGE PLAN FOR LOTS 29 & 30, BLOCK A, UNIT 1, NORTH ALBUQUERQUE ACRES, REVISION DATED JUNE 20, 1990 (B-22/D8)

Dear Mr. Mann:

Based on the information provided on your resubmittal of July 5, 1990, the referenced drainage plan is approved for building permit (Hydrology only).

Please be advised that the following items will be required prior to final of Lot 29 and development of Lot 31.

1. Prior to final for Lot 29, Engineer's Certification per the D.P.M. checklist will be required.

2. Prior to Building Permit release of Lot 31, comments indicated on the June 15, 1990 letter from Mr. Aldaz will need to be addressed.

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

Cordially,

for Bernie J. Montoya
Fred J. Aguirre, P.E.
Hydrologist

BJM:FJA/bsj
(WP+1975)

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DRAINAGE INFORMATION SHEET

Resubmittal

PROJECT TITLE: Lots 29, 30 & 31 North Alb Acres ZONE ATLAS/DRNG. FILE #: B-22/D8

LEGAL DESCRIPTION: Lots 29, 30 & 31 Block A Unit 1 North Albuquerque Acres

CITY ADDRESS: 12409, 12501 & 12509 Modesto NE

ENGINEERING FIRM:	The Mann Company Inc	CONTACT:	Tom Mann
ADDRESS:	8200 Mountain Rd NE #102	PHONE:	266-3555
OWNER:	Skip Hines	CONTACT:	Skip Hines
ADDRESS:	606 Dartmouth NE	PHONE:	1-252-1144
ARCHITECT:	Unknown	CONTACT:	
ADDRESS:		PHONE:	
SURVEYOR:	The Mann Company Inc	CONTACT:	
ADDRESS:		PHONE:	
CONTRACTOR:	Skip Hines	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

RECEIVED
JUL 5 1990
HYDROLOGY DIVISION

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: 6/6/90 7/5/90

BY: Tom Mann

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PAT D. HIGDON, VICE-CHAIRMAN
DANIEL W. COOK, SECRETARY-TREASURER
REX FUNK, DIRECTOR
RONALD D. BROWN, DIRECTOR

LARRY A. BLAIR
EXECUTIVE ENGINEER

Albuquerque
Metropolitan
Arroyo
Flood
Control
Authority

2600 PROSPECT N.E. - ALBUQUERQUE, N.M. 87107
TELEPHONE (505) 884-2215

July 3, 1990

Thomas T. Mann, Jr., P.E.
The Mann Company, Inc.
8200 Mountain Road N.E., Suite 102
Albuquerque, New Mexico 87110

Re: Grading and Drainage plan, Lots 29 and 30, Block A, Unit 1, Tract 2, North Albuquerque Acres

Dear Tom:

On July 3, 1990, AMAFCA received a revised Grading and Drainage Plan for the above referenced Lots 29 and 30 and a letter from you dated July 3, 1990. We previously received revised easement dedication documents. These submittals were in response to our comments transmitted to you on June 18, 1990.

The revised submittal appears to answer all of the comment items from our June 18 letter. Based on your submittal and our understanding that the Grading and Drainage Plan is in conformance with AMAFCA 's Drainage Policy (Resolution No. 1980-15), AMAFCA approves the Grading and Drainage Plan for Lots 29 and 30. The easement documents appear to be acceptable for filing with the County Clerk.

We note that previous submittals have included an evaluation of Lot 31. Drainage questions remain to be resolved at that lot, and the drainage plan is not approved for Lot 31.

Approval comments and conditions from Bernalillo County express concern about the gravel drives as proposed. As stated in the Bernalillo County notice, "any alteration of the grades within the Drainage Easement will require approval from AMAFCA".

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Please note the AMAFCA is not regularly maintaining the arroyo at this property. The dedication of easements are to allow the existing flow to be maintained in the arroyo and to allow for the future construction of drainage facilities should such construction be necessary. AMAFCA currently has not plans for any construction in this area.

Sincerely,

Clifford E. Anderson, PE & LS
Drainage Engineer

cc: Gilbert Aldaz, City-County Floodplain Administration
Bob Foglesong, Bernalillo Co. Surface Water Hydrologist
Skip Hines, 12405 Elena N.E., Albuquerque, New Mexico

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R. WARD HUNNICUTT, CHAIRMAN
PAT D. HIGDON, VICE CHAIRMAN
DANIEL W. COOK, SECRETARY-TREASURER
REX FUNK, DIRECTOR
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LARRY A. BLAIR
EXECUTIVE ENGINEER

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2600 PROSPECT N.E. ALBUQUERQUE, N.M. 87107
TELEPHONE (505) 884-2215

June 18, 1990

RECEIVED
JUN 21 1990
HYDROLOGY DIVISION

Thomas T. Mann, Jr.
The Mann Company, Inc.
8200 Mountain Road N.E., Suite 102
Albuquerque, New Mexico 87110

Re: Grading and Drainage Plan, Lots 29, 30 and 31, Block A, Tract 2, Unit 1, North Albuquerque Acres

Dear Tom:

AMAFCA has reviewed the above referenced grading and drainage plan and has the following comments for your consideration:

1. The drainage easement does not correspond with the 100-year flood zone as shown on the National Flood Insurance Program maps. The easement must be revised to reflect these maps unless data for a letter of map revision is submitted. Does flow from the upstream area indicate the need for a wider easement based on an analysis of the arroyo erosion?

2. The pipe outlet on Lot 32 appears to direct flows onto Lot 31 outside of the proposed easement. It appears that some form of embankment stabilization will be required to protect the house on this property.

3. The flood map amendments for the upstream storm sewer have not been approved by the Federal Emergency Management Agency (FEMA). We understand that they have concerns about design flow rates and sediment capacity. It is possible that FEMA will consider the previous elimination of the upstream pond a basis for widening the 100-year flood zone. For these reasons, the buffering proposed in the plan submitted is appropriate. Is it your belief that the proposed set backs will allow the houses to withstand 100-year storm erosion and erosion from more frequent storms over a reasonable project life?

4. The legal description for these lots should also include the tract number.

5. The plan must be certified in accordance with AMAFCA and Bernalillo County requirements.

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It is our understanding that additional comments are being prepared by City Public Works, Hydrology and by the Bernalillo County Surface Water Hydrologist. We believe that the City's comments express concerns about the entrance road grades.

We look forward to receiving the appropriate legal description or easement survey documents which will allow for the filing of floodplain easements. Please make sure that the easements incorporate all of the drainage comments at this site.

Sincerely,

Clifford E. Anderson, PE & LS
Drainage Engineer

cc: Gilbert Aldaz, City/County Floodplain Administration
Bob Foglesong, Bernalillo Co. Surface Water Hydrologist

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FILE COPY

BOARD OF COUNTY COMMISSIONERS
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EUGENE M. GILBERT, VICE CHAIRMAN
DISTRICT 3
AL VALDEZ, MEMBER
DISTRICT 2
PATRICIA "PAT" CASSIDY, MEMBER
DISTRICT 4
JACQUELYN SCHAEFER, MEMBER
DISTRICT 5
VICKIE FISHER, COUNTY MANAGER

County of Bernalillo

State of New Mexico

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

ALVIN J. CAMPBELL, SHERIFF
PATRICK J. PADILLA, TREASURER
GLADYS M. DAVIS, CLERK
SAM L. PEREA, ASSESSOR
THOMAS J. MESCALL, PROBATE JUDGE

June 15, 1990

Tom Mann, P.E.
The Mann Company
8200 Mountain Road, NE #102
Albuquerque, New Mexico 87110

RE: GRADING AND DRAINAGE PLAN FOR LOTS 29, 30, & 31, BLOCK A, UNIT 1, NORTH ALBUQUERQUE ACRES, RECEIVED JUNE 5, 1990 FOR BUILDING PERMIT (B-22/D8)

Dear Mr. Mann:

Based on the information provided on your submittal of June 5, 1990, the following comments must be addressed prior to Building Permit Approval:

1. Based on a field observation, severe erosion has taken place on Lot 31 below the existing outlet structure. It also appears that the erosion is moving in a northerly direction and could ultimately affect the proposed residence. How do you plan to mitigate this erosion from continuing and to provide floodproofing to this residence as required per the floodplain ordinance?

2. I am not convinced you can match existing grades for Lot 31 and have a usable driveway, please provide a profile and proposed grades to demonstrate this driveway will work.

3. The plot plan submitted to Code Administration Division is different from the drainage plan; which is correct? The plot plan identifies the leech field in the arroyo, which is unacceptable. Please show the locations of the leech fields in all three lots to assure they will not be built within the floodplain.

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4. The drainage easement must be dedicated to and accepted by AMAFCA, prior to building permit approval.

Should you have any questions regarding these comments, please call me at 768-2650.

Cordially,

Gilbert Aldaz

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

xc: Gene Clements, County Env. Health
Clifford E. Anderson, AMAFCA
Bob Fogelsong, Bernalillo County

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(WP+1975)

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DRAINAGE INFORMATION SHEET

PROJECT TITLE: Lots 29, 30 & 31 North Alb Acres ZONE ATLAS/DRNG. FILE #: B-22/D8

LEGAL DESCRIPTION: Lots 29, 30 & 31 Block A Unit 1 North Albuquerque Acres

CITY ADDRESS: 12409, 12501 & 12509 Modesto NE

ENGINEERING FIRM: The Mann Company Inc CONTACT: Tom Mann

ADDRESS: 8200 Mountain Rd NE #102 PHONE: 266-3555

OWNER: Skip Hines CONTACT: Skip Hines

ADDRESS: 606 Dartmouth NE PHONE: 1-252-1144

ARCHITECT: Unknown CONTACT:

ADDRESS: PHONE:

SURVEYOR: The Mann Company Inc CONTACT:

ADDRESS: PHONE:

CONTRACTOR: Skip Hines CONTACT:

ADDRESS: PHONE:

RECEIVED
JUN - 5 1990
HYDROLOGY DIVISION

PRE-DESIGN MEETING:

___ YES

✓ NO

___ COPY OF CONFERENCE RECAP SHEET PROVIDED

WUB 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:

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___ FOUNDATION PERMIT APPROVAL

___ CERTIFICATE OF OCCUPANCY APPROVAL

___ ROUGH GRADING PERMIT APPROVAL

___ GRADING/PAVING PERMIT APPROVAL

___ OTHER _____ (SPECIFY)

DATE SUBMITTED: 6/6/90

BY: Tom Mann

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To: County Building Dept.

From: Gilbert Aldaz

Date: 02-10-94

B-22

Re: BP 90-793 (12509 Modesto Avenue, NE)

- Contractor is proposing to Add 239sf Heated Area to North Side, Floodplain Administrator has no objection to the addition but must swale flows around structure & to the arroyo on South Side.

- Contractor proposing to re orient garage and driveway to the south over AMAFCA easement. He will need to secure a License Agreement from AMAFCA prior to this approval, & this may require an updated drainage plan.

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Photograph(s) Follow Which Do Not Always Reproduce Well

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PLANS/PLATS ON FILE

FILE DESC: _____

B22/08

PLANS/PLATS 1

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