PLANS/PLATS ON FILE

FILE DESC: E-17/D006

PLANS/PLATS 1

CHAVEZ GRIEVES / CONSULTING ENGINEERS, INC.
6121 INDIAN SCHOOL RD., N.E. SUITE 120
ALBUQUERQUE, N.M. 87110
PH. (505) 881-7376

RECEIVED
OCT 29 1982
ENGINEERING

LETTER OF TRANSMITTAL

TO: City of Albuquerque
Hydrology Department
Brian Burnett
P.O. Box 1293
Albuquerque, New Mexico 87103

DATE: October 20, 1982
JOB NO. K03-102-50
RE: Dembs Roth Warehouse

GENTLEMEN:

We are sending you X ATTACHED ___ UNDER SEPARATE COVER the following items:

__ SHOP DRAWINGS __ CHANGE ORDER __ SPECIFICATIONS
__ COPY OF LETTER __ PLANS __ _____
X PRINTS __ SAMPLES

COPIES	DATE	NO.	DESCRIPTION
2			Prints on Dembs Roth Warehouse

THESE ARE TRANSMITTED as checked below:

__ FOR APPROVAL
X FOR YOUR USE
X AS REQUESTED
__ FOR REVIEW AND COMMENT
__ APPROVED AS SUBMITTED
__ APPROVED AS NOTED
__ _____

__ RETURNED FOR CORRECTIONS
__ RESUBMIT ___ COPIES FOR APPROVAL
__ SUBMIT ___ COPIES FOR DISTRIBUTION
__ RETURN ___ CORRECTED PRINTS
__ PRINTS RETURNED AFTER LOAN TO US
__ FOR BIDS DUE _____ 19__

REMARKS:

COPY TO: Don Krueger and Assoc.

SIGNED: Victor J. Chavez

If enclosures are not as noted, kindly notify us at once.

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

November 10, 1982

Mr. Victor J. Chavez
Chavez-Grieves Construction Eng. Inc.
6121 Indian School Road
Albuquerque, New Mexico 87110

Ref: Albuquerque Business Park for
Dembs Roth Management E17-D32/D36

Dear Mr. Chavez:

The following is the City Engineering finding on your drainage and grading plan:

1.) The engineer's certificate is required in the plans.

2.) The quantifications and locations of the 10 year and 100 year undeveloped flows are required.

3.) The quantifications and locations of the 10 year and 100 year developed flows are required.

4.) A detailed plan of the outfall onto the AMAFCA Channel is required (previously known as "special order 19"). This plan shall be on the standard City forms available through Robert Kielich, Design Section.

5.) There is no off-site flows indicated nor a statement saying that there is no off-site flows to consider.

6.) Is the storm sewer under the building allowed by the code. Is PVC allowed or is ductile iron required, please investigate and inform me of this possible problem. (1982 UPC - Appendix D, Part A, Subsection D1 (c).

If you require any additional information as to our requirements for the grading and drainage plan approval, please contact me.

Sincerely,

Andre Houle, PE
Civil Engineer/Hydrology

AH/el

cc: Bob Kielich

CHAVEZ GRIEVES / CONSULTING ENGINEERS, INC.
6121 INDIAN SCHOOL RD., N.E. SUITE 220
ALBUQUERQUE, N.M. 87110
PH. (505) 881-7376

January 20, 1983

Andre Houle, P.E.
Civil Engineer/Hydrology
City of Albuquerque
P.O. Box 1293
Albuquerque, New Mexico 87103

RECEIVED
JAN 20 1983
ENGINEERING

RE: Albuquerque Business Park for Dembs
Roth Management E17-~~D33~~ D6

Dear Mr. Houle,

In response to your letter dated November 10, 1982 regarding the above referenced project, I offer the following comments:

1. Attached is a copy of the Site Drainage Plan with the Engineer's certification as required. Please note a correction on the size of the storm drains. ?

2. The 10 year and 100 year undeveloped flows will be 10.95 and 16.6 cubic feet per second respectively. Approximately two-thirds of the flow is directed to the west onto adjacent properties. One-third of the runoff is retained on site in existing depressions..

3. The 10 year and 100 year developed flows will be 27.6 and 37.3 cubic feet per second respectively. The direction of flow will be to the Bear Arroyo through the proposed storm drain. This will eliminate flows from the site onto the adjacent properties to the west.

4. Approved copies of the "Special Order 19" sheets have been submitted to the City for approval and will be attached to the Construction Documents upon receipt.

5. Offsite flows are diverted by the frontage road to the east and an existing access road to the north. The small volumes of runoff generated between the frontage road and the site will be retained in shallow ponds located along the east property line.

6. The use of a P.V.C. storm drain has been reviewed with representatives from the City and is acceptable for use in a Type V-N building.

I hope this information will be adequate. Please feel free to call if you have any questions. Your timely assistance is appreciated.

Sincerely,

Victor J. Chavez

Victor J. Chavez P.E.

Encl.

VJC/dlk

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

February 8, 1983

Mr. Victor J. Chavez
Chavez-Grieves Consulting Engineers, Inc.
6121 Indian School Road, Suite 120
Albuquerque, New Mexico 87110

Ref: Albuquerque Business Park For
Dembs-Roth Management (E17-~~D59~~)
D6

Dear Mr. Chavez:

The following are the requests of the City Engineering Department for additional information to continue review of the aforementioned project.

1. The location (and basin outline) of the developed flows and the peak discharges at the discharge points.

2. The pipe diameter of the proposed outfall lines. I am unsure of the pipe size at this time and need the flow quantification for the pipe. The proposed pipe will have to carry 20 - 40 c.f.s. and the pipe size is not indicated on the plans.

3. I would recommend that the proposed retention ponds at the east end of the property be swales on highway right-of-way with N.M.S.H.D. approved permits for both grading and driveway cuts. If you insist on accepting flows from the public right-of-way then the ponds must have a positive discharge with a detention not to exceed 24 hours as per the Ordinance.

4. There appears to be a need for a retaining wall or other grade control structure along the west property line.

5. It is now the practice to require a Holdharmless Agreement for any development occurring next to an unlined arroyo, this will be required for building permit approval.

Contact me should you require any clarification on these comments.

Very truly,

Andre Houle, PE
Civil Engineer/Hydrology

√AH/el

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

February 25, 1983

Mr. Victor J. Chavez
Chavez Grieves Consulting Engineering Inc.
6129 Indian School Road, Suite 120
Albuquerque, New Mexico 87110

Ref: Albuquerque Business Park for
Dembs-Roth Management (E17-D39)
D6

Dear Mr. Chavez:

The drainage and grading plan for the aforementioned site is hereby approved with the changes you have made in your February 11, 1983 submittal.

As per my February 8, 1983 letter in order to obtain a Certificate of Occupancy sign-off from the City Engineer the Indemnity Agreement holding the City harmless will be required since this abutts an unlined arroyo.

An encroachment agreement (as per the DPM) will also be required for the site's outfall.

Please notify your client of these requirements to obtain his Certificate of Occupancy.

Very truly,

Andre Houle

Andre Houle, PE
Civil Engineer/Hydrology

AH/el

cc: Drainage File
Reading File

CHAVEZ GRIEVES / CONSULTING ENGINEERS, INC.
6121 INDIAN SCHOOL RD., N.E. SUITE 220
ALBUQUERQUE, N.M. 87110
PH. (505) 881-7376

May 31, 1983

Andre Houle
City Of Albuquerque
P.O. Box 1293
Albuquerque, New Mexico 87103

RE: Dembs-Roth Project
5901 Pan American

Dear Mr. Houle;

Regarding you letter dated May 6, 1983, I am hereby authorizing the installation of the 8" PVC pipe. I am also requiring some minor changes in grading and landscaping to insure that should the 8" PVC pipe be plugged, overflow will not enter the building. These changes will occur at the northeast corner of Building "A" and will allow overflows to be transported to the north of the building.

In addition, I am also authorizing the installation of a 30" CMP drain along the west end of the property in place of the originally recommended 24" RCP drain. As noted in the attached letter, this change has been reviewed by Mr. Bob Kielich with the City Engineering Office. Mr. Carmine Raia, with Raico Plumbing Company, has received verbal approval of this change.

Please call if you have any questions regarding these changes.

Sincerely,

Victor J. Chavez

Victor J. Chavez, P.E.

VJC/dlk

Encl. 1
cc: Donald A. Krueger and Associates,
Raico Plumbing Company

City of Albuquerque

May 6, 1983

Mr. Victor Chavez
Chavez-Grieves Cons. Eng., Inc.
6121 Indian School Road NE Suite 220
Albuquerque, NM 87110

REF: Dembs-Roth Project 5901 Pan American

Dear Mr. Chavez:

Due to the descrepency between the Architectural sheets and the approved grading and drainage plan, the contractor has installed an 8" pipe versus the engineered 12" pipe. This is to notify you that the City will approve the 8" pipe upon your authorization of the change. Please forward your recommendation in order to resolve this problem before paving occurs.

Sincerely,

Andre Houle
Civil Engineer/Hydrology

mrk

cc: Mr. Carmine Raia, Raico Plumbing
Donald A. Krueger & Associates
Dembs Roth Construction Management

MUNICIPAL DEVELOPMENT DEPARTMENT

Richard S. Heller, P.E., City Engineer
LaMonte J. Urban, P.L.S., Chief City Surveyor

ENGINEERING DIVISION

123 Central Avenue N.W.
Albuquerque, New Mexico 87102
Telephone (505) 766-5040

CHAVEZ GRIEVES / CONSULTING ENGINEERS, INC.
6121 INDIAN SCHOOL RD., N.E. SUITE 220
ALBUQUERQUE, N.M. 87110
PH. (505) 881-7376

June 28, 1983

Fred Aguirre
City of Albuquerque
P.O. Box 1293
Albuquerque, New Mexico 87103

RE: Albuquerque Business Park

Dear Mr. Aguirre;

We are hereby authorizing a change from the concrete inlets with Neenah grating to C.M.P. risers with a concrete ring at the surface and the same Neenah gratings as originally specified and as shown on the attached drawings. This has been reviewed by the plumbing contractor with Mr. Bob Kielich and he has received a verbal approval for the change.

Please call if you have any questions or if I can be of any further assistance.

Sincerely,

Victor J. Chavez

Victor J. Chavez, P.E.

VJC/dlk
Encl.

CHAVEZ GRIEVES / CONSULTING ENGINEERS, INC.

4520 MONTGOMERY BLVD. SUITE 3
ALBUQUERQUE, N.M. 87109
(505) 881-7376

December 23, 1983

Leonard Gyselinck
c/o Donald A. Krueger and Associates
126 General Chennault N.E.
Albuquerque, New Mexico 87123

RE: Albuquerque Gateway Development

Dear Leonard;

As requested, I have reviewed the condition of the above referenced project relative to a phased development of the original drainage plan. The first phase of development has been completed in general conformance with the approved plan. Underground storm drains, rough grading of the entire site and installation of curbs and gutters to restrict flows to and from adjacent properties is complete.

Some work will be required in Phase II of the project to reduce grade differences along the northwest property line as shown on the original drainage plan.

It is my opinion that Phase I has been completed in general conformance with the drainage plan and the phased development will not have a detrimental effect on the existing or surrounding facilities.

Please call if I can be of any further assistance in this matter.

Sincerely,

Victor J. Chavez

Victor J. Chavez, P.E.

VJC/dls

CITY OF ALBUQUERQUE

ALBUQUERQUE, NEW MEXICO

INTER-OFFICE CORRESPONDENCE February 16, 1984 REF. NO._____

TO: James P. Fitzgerald, Assistant City Attorney

FROM: Stephen K. Bowman, Assistant City Attorney SKB

SUBJECT: Albuco Agreement

These documents were sent to the City Attorney's Office on January 12, 1984 for review and approval. The documents consist of a Real Property Encroachment Agreement and a Indemnification Agreement and Covenant.

The Real Property Encroachment Agreement is dated May 10, 1983 and appears to be a preprinted standard form. Basically, this Agreement grants Albuco permission to encroach upon City property for the purposes of constructing and maintaining a storm drain outlet. This Agreement further provides "the user shall be responsible for the construction and/or maintenance of said improvement and it shall conform to all laws and ordinances and administrative regulations applicable thereto."

The document entitled Indemnification Agreement and Covenant is dated December 27, 1983 and has been signed by an owner of Albuco and approved by the City Engineer. This document acknowledges that the City has enacted its drainage ordinance (Enactment No. 63-1982) and further acknowledges that the proposed construction of Albuco does not satisfy the requirements of that ordinance. In the Agreement, Albuco agrees to indemnify and hold harmless the City against any claims brought against them arising from Albuco's failure to comply with the drainage ordinance. In return for this indemnification, the City agrees to issue necessary building permits, despite Albuco's failure to comply with the drainage ordinance.

As I read these documents, the City requires conformance to its ordinance in the Real Property Encroachment Agreement and then acknowledges and allows nonconformance with the drainage ordinance in the Indemnification Agreement. After researching this subject, it is my conclusion that the City may be exposing itself to liability in entering into this Indemnification Agreement.

While the Indemnification Agreement may be operative with respect to Albuco, potential damage to third parties or their property is another question. It seems clear that a municipality has a duty to avoid the creation of conditions that are dangerous to its citizens or the public generally and should not encourage or allow individuals to disobey its ordinances. See McQuillin, Municipal Corporations, §53.22d. The stated purpose of the City's drainage ordinance is to promote public health, safety and general welfare and to minimize public losses due to flooding. Through this Indemnification Agreement, the City is essentially ratifying Albuco's noncompliance with its drainage ordinance. This ratification could expose the City to liability in the event a third party was damaged by Albuco's nonconforming ~~design and~~ construction.

It is my understanding that the City is currently a Party Defendant in a lawsuit (the High Noon Restaurant case) which imputes liability on the City's part under this ~~period~~ theory. Although Albuco purports to "defend, indemnify, and hold harmless the City, its officials, agents and employees from and against any and all claims, actions, suits, or proceedings of any kind brought against them for or on account of any matter arising from the failure of Albuco to comply with the drainage ordinance", it appears likely that a damaged third party would look to the City for compensation because the City formally acknowledged and approved a violation of an ordinance designed to protect that third party from loss due to flooding.

For the above reasons, I do not believe that it is wise for the City to enter into this type of agreement or for the City Attorney's Office to approve it.

SKB/lg

CITY OF ALBUQUERQUE

ALBUQUERQUE, NEW MEXICO

RECEIVED
APR 09 1984
CITY ENGINEER

INTER-OFFICE CORRESPONDENCE April 6, 1984 REF. NO.

TO: Dwayne Sheppard, City Engineer

FROM: Stephen K. Bowman, Assistant City Attorney SKB

SUBJECT: Albuco Agreements

I have reviewed and signed these documents only because I understand that this arrangement has already been promised to Albuco. My memo to Jim Fitzgerald expressing my serious problems with this type of arrangement is attached.

I strongly urge you to attempt renegotiation of this arrangement if possible and see if there is a way that Albuco can comply with Enactment No. 63, 1982 in conjunction with their construction. As you can see from the attached memo, I am concerned about the City's potential liability should Albuco's non-conformance result in damage to a third party.

Please call me if you have questions or comments.

SKB/lg

CITY OF ALBUQUERQUE
ALBUQUERQUE, NEW MEXICO

INTER-OFFICE CORRESPONDENCE

RECEIVED
MAY 04 1989
HYDROLOGY SECTION

May 3, 1989

E17-D39
D6

TO: Jack Cloud, Acting Chairman, DRB

FROM: Adelia W. Kearny, Assistant City Attorney

SUBJECT: Bear Canyon Arroyo Agreement

Because it has taken me some time to get the draft letter out, it's not fair to ask you to expedite your review, but would you anyway? You can give me a telephone call in response. It took Myers a month and a half to get back to us after the January 26 meeting, but I am no longer in a position to cast stones. Myers is getting restless.

By copy of this memo, I am asking Aguirre to confirm whether the approximate width of the channel is 40 feet or 60 feet. Fred, please call me with your answer.

Again, regarding the survey descriptions which are Exhibits A to the Agreements (copies attached for Aguirre and Green), I am not the one to determine whether or not they are acceptable or insure that Lamonte Urban's section verifies. Please have the appropriate person do so.

AWK/bw
LDY 1496
Attachment

cc w/attachments:

Fred Aguirre, Hydrologist, Eng./PWD
Roger Green, Sr. Civil Eng., Design Review

DRAFT

May 3, 1989

John A. Myers
Attorney at Law
6400 Uptown Blvd., N.E., Suite 300-W
Albuquerque, New Mexico 87110

Re: Bear Canyon Arroyo Agreement

Dear John:

1. Vacation Action. Regarding your question about replatting and the one-year limitation, please refer to the Official Notice of the findings and conditions of the May 3, 1988 DRB vacation action V-88-32. Section 3 states that the Johnsons shall file a replat showing the vacated easements and incorporating the vacated right-of-way and adjoining property and granting the new drainage easement "within one year." That finding was not appealed. Also, the DRB imposes the one-year limitation on both vacated easements and rights-of-way. Please resubmit for vacation and call Jack Cloud if you have any questions. You will need the new vacation number to finalize the agreement.

2. March 15 Agreement Version. As you will recall, we met with Jack Cloud on January 26 and reviewed the most recent drafts. In mid-March you submitted a revised version to me. I reviewed the contract from memory, then compared your revisions to my January 26 notes and then met with Jack Cloud. His recollections and questions are essentially the same as mine. The following changes should be made to the Agreement.

Second "WHEREAS." Change reference to "Bear Canyon Arroyo Property" (and in Section 8) to be consistent with later references in the Agreement, or delete "Arroyo" from all references (e.g. Section 5).

Sixth "WHEREAS." Add the appropriate reference number for the 1989 vacation when available so the line will read "...DRB-86-774, V-88-32, V-89-__?__." Change the vacation number in the seventh "WHEREAS" paragraph also.

Section 1 (grant of temporary easement on north side). Delete the word "suggested" in the title identifying the legal descriptions to both Parcel 5 and Parcel 6 (Exhibit A).

Section 2, second paragraph. To conform to actual City requirements and procedures, the wording should be:

> Upon acceptance by the City of, or financial guarantee of the construction of, the Closed Conduit, <u>and recording the final plat as required by V-89- 7 </u>, the City will then <u>release</u> to San Mateo, all its right, title and interest in the City Easement.

Please insert and correct according to the underlines above. The word "release" instead of "convey" was discussed at length at the January 26 meeting. The terminology is correct in Sections 3, 5 and 8.

Section 8.A. "<u>Grant</u> a bicycle/pedestrian path easement..." (not "dedicate").

Section 8.B. Add the underlined words and start a new sentence where indicated: "San Mateo hereby makes a grant of easement <u>with warranty covenants</u>, a minimum of 12' wide...from San Mateo to ISR-25. <u>The</u> exact location..."

Add Section 9:

> 9. <u>Severability</u>. If any part of this Agreement is held to be invalid or unenforceable, such holding will not affect the validity or enforceability of any other part of this Agreement so long as the remainder of the Agreement is reasonably capable of completion.

Add Section 10:

> 10. <u>Required Signatures</u>. This Agreement shall not become effective or binding until approved by the City's Chief Administrative Officer.

Signature Block. Add a line for the Deputy Chief Administrative Officer.

Exhibit B, Agreement and Grant of Easement (for closed conduit), second paragraph. Add the underlined words:

Require ?

> In consideration...Grantor hereby...sells and conveys, with warranty covenants, to the City an easement <u>approximately ? ' wide</u> over and under...

Section 1.A. Wording is identical to wording in Section 3. Because the wording is already a part of Section 1.A, you can delete the sentence in Section 3: "The City shall have the right to enter...the Drainage Facilities."

Section 5. Begin a new sentence with "However, Grantor."

Section 8. Add the following sentence. "Nothing herein shall be construed to modify the City's limits of liability as set forth in the New Mexico Tort Claims Act."

Section 9. Before execution of Exhibit B, provide the address for notice to San Mateo.

Add Section 10:

> 10. <u>Severability</u>. If any part of this Agreement is held to be invalid or unenforceable, such holding will not affect the validity or enforceability of any other part of this Agreement so long as the remainder of the Agreement is reasonably capable of completion.

Add Section 11:

> 11. <u>Required Signatures</u>. This Agreement shall not become effective or binding until approved by the City's Chief Administrative Officer.

Exhibit B - Delete the word "suggestion" in the name of the exhibit.

Obviously, not all of the above changes and additions are critical, but because several material points still must be corrected, I added the other clarifications.

3. <u>Title Commitment</u>. As required by Section 1 of the Agreement, San Mateo must provide the City with satisfactory evidence of title. Obviously San Mateo will be obtaining updated title insurance. Each of the commitments you provided to me has terminated ("six months after the effective date") and are not acceptable for a number of reasons. The following is a partial list of problems.

<u>North side of arroyo. Parcel 5. Triangle</u>. Commitment terminated June 1, 1988. The City believes no one

has paid the taxes for years. This must be cleared up. (See Section I.3, II.8 and, in particular, Special Exceptions No. 2. Have you been working with AMAFCA? (Special Exceptions No. 3.) The claims of all adjoining owners, mortgagees, lessors and/or lessees must be deleted. (Special Exceptions 4.) I assume an acceptable survey would take care of this.

How do the Utility Easement (Special Exceptions 5) and the encroachment agreement (Special Exceptions 6) affect the property? etc., etc. It would expedite matters to provide copies of all documents referred to in the Special Exceptions section of each commitment.

North side of arroyo, Parcel 6, Triangle (owner Sunwest. Commitment terminated April 22, 1986. Proposed insured is shown as "Steve Johnson," not San Mateo Joint Venture. Exhibit A is missing from my copy. Schedule B.1.3: Warranty Deed should be from San Mateo Joint Venture, not Johnson. Much of my copy is illegible.

Section 12. Is the easement a City easement? From AMAFCA? (Schedule B, Section 12)

Section 13. Whose retaining walls are encroaching? Does the entity have an encroachment agreement signed by the City and/or AMAFCA?

No special exceptions were attached to my copy. Pages seem to be missing.

South side of arroyo, Brentwood Parcels 1, 2 and 4 and Black Parcel 3. Commitment terminated February 17, 1989. Schedule B.I.6: Warranty Deed should be to San Mateo Joint Venture, not "Johnson Development." II.B, resolve rights of AMAFCA and "adjoining owners."

Again, for all parcels, resolve the tax issues.

Since the liability of the title company is only to the named insured, the City must be a named insured.

4. Property Management Acquisition Requirements. Ted Pearson, Roger Copple and Kevin Curran will be moving into new offices on the third floor of the City/County Building as in-house lawyers for Property Management. They are finalizing rules detailing the City's requirements for acquisition of real property by whatever means. I expect them to review the Bear Canyon Arroyo documents and title insurance. I strongly suggest that you talk to Ted soon and obtain a copy of the requirements.

As you are aware, I have not been representing the Public Works Department Design Review or Hydrology Sections for

many months. However, given the long history of the Bear Canyon Arroyo matter, if you expect to wrap up fairly soon, I will continue to follow through. Please call if you have any questions about changes to the Agreement and related Exhibits. Thank you.

Very truly yours,

Adelia W. Kearny
Assistant City Attorney

AWK/bw
LDY 1479

cc: Jack Cloud, Acting Chairman, DRB
Fred Aguirre, Hydrologist, Engineering/PWD
Dwayne Sheppard, Hydro/Special Planning Div.
Bob Hogrefe, Sr. Civ. Eng., Inspection/PWD
Roger Green, Sr. Civ. Eng., Design Rev.
Rose Elwell, Property Management
Paula Donahue, Advanced Planning Sec.
Ted Pearson, Assistant City Attorney

EXHIBIT A

TEMPORARY - N [illegible]

SUGGESTED LEGAL DESCRIPTION - PARCEL 5

A certain parcel of land situate within Projected Section 26, Township 11 North, Range 3 East, N.M.P.M. within the Elena Gallegos Grant to the City of Albuquerque, New Mexico, comprising the north portion of the Bear Canyon Arroyo adjacent to Tract A-1-A, Triangle Realty, Incorporated, as shown on the plat filed in the Office of the County Clerk of Bernalillo County, New Mexico, on December 10, 1986, Book C32, Page 76, and being more particularly described as follows:

Beginning at the northeast corner of the parcel herein described, being the southeast corner of said Tract A-1-A; thence S 00°04'00" W a distance of 107.16 feet to a point on the centerline of Bear Canyon Arroyo; thence S 69°00'00" W a distance of 188.10 feet along said centerline; thence along the arc of a curve to the right with Chord Bearing = S 86°36'00" W, Chord Length = 317.49 feet, DELTA = 35°12'00", R = 525.00 feet and L = 322.54 feet along said centerline; thence N 77°37'00" W a distance of 19.47 feet along said centerline to a point on the east right-of-way line of Interstate Highway 25 Frontage Road; thence along the arc of a curve to the left with Chord Bearing = N 13°06'10" E, Chord Length = 99.96 feet, DELTA = 01°26'15", R = 3984.52 feet and L = 99.96 feet along said right-of-way line to the northwest corner of the parcel herein described, being the southwest corner of said Tract A-1-A; thence S 77°37'00" E a distance of 21.39 feet along the south property line of said Tract A-1-A to a non-tangential point of curvature to the left with Chord Bearing = N 86°36'00" E, Chord Length = 257.01 feet, DELTA = 35°12'00", R = 425.00 feet and L = 261.10 feet along the south property line of said Tract A-1-A; thence N 69°00'00" E a distance of 226.62 feet along the south property line of Tract A-1-A to the point of beginning and containing 1.1924 acres more or less.

SUGGESTED LEGAL DESCRIPTION - PARCEL 6

A certain parcel of land situate within Projected Section 26, Township 11 North, Range 3 East, N.M.P.M. within the Elena Gallegos Grant to the City of Albuquerque, New Mexico, being adjacent to Tract B, Land of Triangle Realty, Incorporated, as shown on the plat filed in the Office of the County Clerk of Bernalillo County, New Mexico, on January 29, 1973, Book C9, Page 37, and being more particularly described as follows:

Beginning at the northwest corner of the parcel herein described, being the southwest corner of said Tract B; thence N 69°00'00" E a distance of 46.54 feet along the south property line of said Tract B; thence along the arc of a curve to the right with Chord Bearing = N 79°32'00" E, Chord Length = 228.51 feet, DELTA = 21°04'00", R = 625.00 feet and L = 229.80 feet along the south property line of Tract B; thence S 89°56'00" E a distance of 81.91 feet along the south property line of Tract B to the northeast corner of the parcel herein described, being the southeast corner of said Tract B and also being a point on the west right-of-way line of San Mateo Boulevard N.E.; thence S 00°04'00" W a distance of 100.00 feet along said right-of-way line to a point on the centerline of the Bear Canyon Arroyo; thence N 89°56'00" W a distance of 81.91 feet along said centerline; thence along the arc of a curve to the left with Chord Bearing = S 79°32'00" W, Chord Length = 191.95 feet, DELTA = 21°04'00", R = 525.00 feet and L = 193.03 feet along said centerline; thence S 69°00'00" W a distance of 85.08 feet along said centerline; thence N 00°04'00" E a distance of 107.16 feet to the point of beginning and containing 0.8244 acres more or less.

PERMANENT

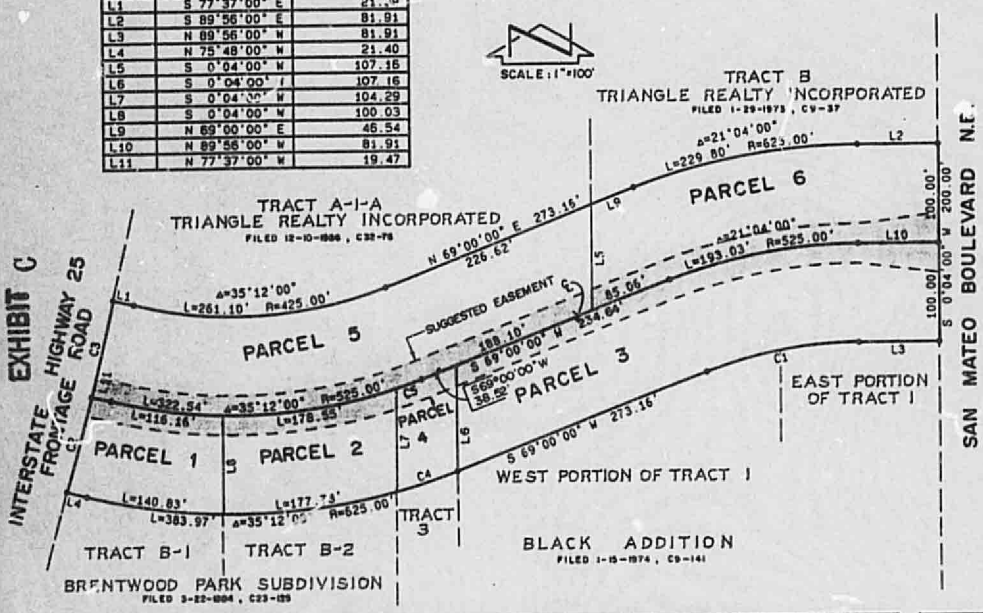
SUGGESTED EASEMENT DESCRIPTION

A certain parcel of land situate within Projected Section 26, Township 11 North, Range 3 East, N.M.P.M. within the Elena Gallegos Grant to the City of Albuquerque, New Mexico, comprising a portion of the Bear Canyon Arroyo and being more particularly described as follows:

Beginning at the southeast corner of the easement herein described, being a point on the west right-of-way line of San Mateo Bouelvard N.E. whence the northeast corner of Tract 1, Black Addition, as shown on the plat filed in the Office of the County Clerk of Bernalillo County, New Mexico on January 15, 1974, Book C9, Page 141, bears S 00°04'00" W a distance of 70.00 feet; thence running as an easement N 82°58'22" W a distance of 82.52 feet; thence along the arc of a curve to the left with Chord Bearing = S 79°32'00" W, Chord Length = 184.64 feet, DELTA = 21°04'00", R = 505.00 feet and L = 185.68 feet; thence S 69°00'00" W a distance of 273.16 feet; thence along the arc of a curve to the right with Chord Bearing = S 86°36'00" W, Chord Length = 329.58 feet, DELTA = 35°12'00", R = 545.00 feet and L = 334.82 feet; thence N 77°37'00" W a distance of 19.60 feet to a point on the east right-of-way line of Interstate Highway 25 Frontage Road; thence along the arc of a curve to the left with Chord Bearing = N 14°33'52" E, Chord Length = 20.00 feet, DELTA = 00°22'42", R = 3029.79 feet and L = 20.00 feet along said right-of-way line to a point of compound curvature to the left with Chord Bearing = N 13°40'46" E, Chord Length = 20.00 feet, DELTA = 00°17'15", R = 3984.52 feet and L = 20.00 feet along said right-of-way line; thence S 77°27'00" E a distance of 19.66 feet to a non-tangential point of curvature to the left with Chord Bearing = N 86°36'00" E, Chord Length = 305.39 feet, DELTA = 35°12'00", R = 505.00 feet and L = 310.25 feet; thence N 69°00'00" E a distance of 273.16 feet; thence along the arc of a curve to the right with Chord Bearing = N 79°32'00" E, Chord Length = 199.26 feet, DELTA = 21°04'00", R = 545.00 feet and L = 200.39 feet; thence N 83°06'22" E a distance of 82.52 feet to the northeast corner of the easement herein described, being a point on the west right-of-way line of San Mateo Boulevard N.E.; thence S 00°04'00" W a distance of 60.00 feet to the point of beginning and containing 0.8362 acres more or less.

EXHIBIT "B"
TO
AGREEMENT AND GRANT OF EASEMENT

LINE	BEARING	DISTANCE
L1	S 77°37'00" E	21.[illegible]
L2	S 89°56'00" E	81.91
L3	N 89°56'00" W	81.91
L4	N 75°48'00" W	21.40
L5	S 0°04'00" W	107.16
L6	S 0°04'00" [illegible]	107.16
L7	S 0°04'00" W	104.29
L8	S 0°04'00" W	100.03
L9	N 69°00'00" E	46.54
L10	N 89°56'00" W	81.91
L11	N 77°37'00" W	19.47



CURVE	ARC	DELTA	RADIUS	CHORD LENGTH	CHORD BEARING	TAN LENGTH
C1	156.27	21°04'00"	425.00	155.39	S 79°32'00" W	79.02
C2	99.41	1°52'47"	3029.79	99.40	N 15°18'55" E	49.71
C3	99.96	1°26'15"	3984.52	99.96	N 13°06'10" E	49.98
C4	65.41	5°59'48"	625.00	65.38	S 71°59'54" W	32.74
C5	27.82	3°02'10"	525.00	27.82	N 70°31'05" E	13.91

ENGINEERS

JOB NO. 880401

[- - -] =Closed Conduit Easement

Job Dennis Roth Warehouse
Subject Revise Outlet Pipe Calcs
Client Don Krueger

Sheet No. ___ of ___
Job No. ___
By VJC Date 2/83

CHAVEZ-GRIEVES / CONSULTING ENGINEERS, Inc. Albuquerque, NM

Revise for increased flow from Ponds to east of Property.

Increase = 13 %

From Outlet to 1st Manhole

$Q = 37(1.13) = 41.8$ cfs.

for 24" ø $k = 226.2$

$S = (41.8/226.2)^2 = 0.0340$

Elev. @ 1st Manhole = 62 + 0.034 (70) = 64.4

From 1st to 2nd Manhole

Slope Avail. = $\frac{69.3 - 64.4}{445} = 0.0110$

$Q_{100} = 21.2(1.13) = 24.0$

$K_{req} = 24/(.011)^{.5} = 228$

$K_{avail} = 226 \approx 228$ ∴ ok.

Ck. Plastic Pipe below Bldg "A" $Q_{100} = 3.7$ cfs.

$S = 0.0208$ $K = 35.63(.66)^{2.66}\left(\frac{.013}{.011}\right) = 17.16$

$Q_{avail} = 17.16(.0208)^{.5} = 2.5$ cfs. N.G.

Try 10" ø $K = 35.63(.83)^{2.66}\left(\frac{.013}{.011}\right) = 25.65$

$Q = 2.5(25.65/17.16) = 3.7$ cfs. ok.

Job Oembs - Roth Warehouse
Subject Outlet Pipe
Client Don Krueger

Sheet No. ___ of ___
Job No. ___
By VJC Date 11/82

CHAVEZ-GRIEVES / CONSULTING ENGINEERS, Inc. Albuquerque, NM

From outlet to 1st Manhole.

$Q_{100} = 37$ cfs.

for 24" ϕ Pipe $K = 226.2$

$S = \left(\frac{37}{226}\right)^2 = .0268$

Assume H2O Elev. @ Outlet = 62.0

Elev. @ 1st Manhole = 62 + .0268 (70) = 63.9

From 1st to 2nd Manhole

Slope available = $\frac{69.3 - 63.9}{445} = 0.0121$

$Q_{100} = 21.2$ cfs.

$K_{req} = 21.2 / (.0121)^{.5} = 192$

Use 24" ϕ K. Avail = 226

Actual $S = (21.2/226)^2 = 0.088$

Add. Head Available for Minor Losses = 0.0033 (445) = 1.5'

INFORMATION SHEET

PROJECT TITLE Albuquerque Business Park for Dembs Roth Management

TYPE OF SUBMITTAL Drainage Plan

ZONE ATLAS PAGE NO. ~~E-17-7~~ E17/D2

CITY ADDRESS N/A

LEGAL DESCRIPTION Parcel "A" Albuquerque Industrial Park

ENGINEERING FIRM Chavez-Grieves Cons. Eng., Inc.

CONTACT Victor J. Chavez

ADDRESS 6121 Indian School Rd.N.E., Ste. 220

PHONE 881-7376

OWNER Dembs Roth

CONTACT Michael Roth

ADDRESS 17220 W. 12 Mile Rd., Southfield, Mich.

PHONE (313)557-1511

ARCHITECT Donald A. Krueger and Associates

CONTACT Don Krueger

ADDRESS 126 General Chennault N.E.

PHONE 293-7888

SURVEYOR E.R. and Associates

CONTACT John Esquibel

ADDRESS 1300 San Pedro N.E.

PHONE 256-8791

CONTRACTOR Dembs Roth Const. Management

CONTACT Michael Roth

ADDRESS 17220 W. 12 Mile Rd., Southfield, Mich.

PHONE (313)557-1511

DATE SUBMITTED 10-20-82

BY Victor J. Chavez

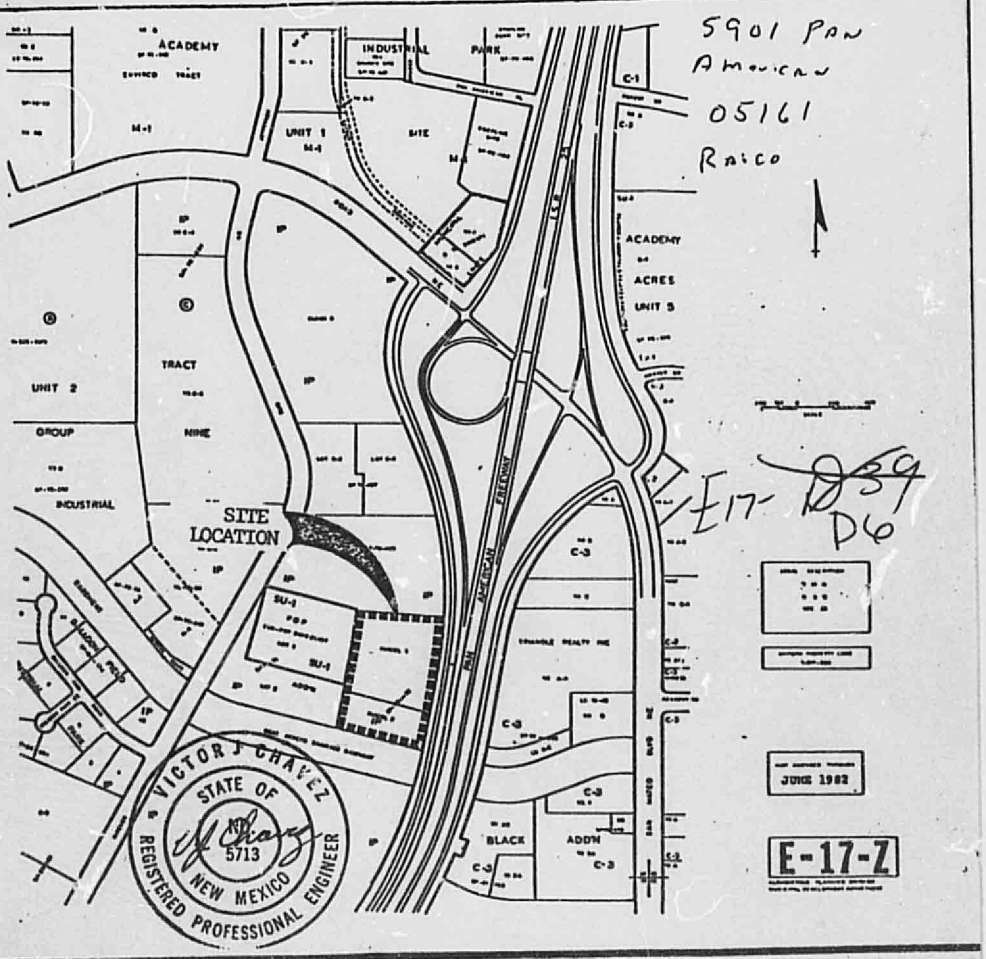
RECEIVED
OCT 19 1982
OCT 20 1982
ENGINEERING
ENGINEERING

THIS MICROIMAGE IS THE BEST POSSIBLE REPRODUCTION DUE TO THE POOR QUALITY OF THE ORIGINAL DOCUMENT.

9300 Pan American

CITY OF ALBUQUERQUE

DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY



REVISED 6-15-83

NOTICE TO CONTRACTOR

1. An excavation/construction permit will be required before beginning any work within City right-of-way. An approved copy of these plans must be submitted at the time of application for this permit.

2. All work detailed on these plans to be performed, except as otherwise stated or provided hereon, shall be constructed in accordance with "Contract Documents for City-Wide Utilities and Cash Paving No. 31 "

3. Two working days prior to any excavation, contractor must contact Line Locating Service, 765-1234, for location of existing utilities.

4. Prior to construction, the contractor shall excavate and verify the horizontal and vertical locations of all obstructions. Should a conflict exist, the contractor shall notify the engineer so that the conflict can be resolved with a minimum amount of delay.

5. Backfill compaction shall be according to Residential street use. Delete B, C and D.

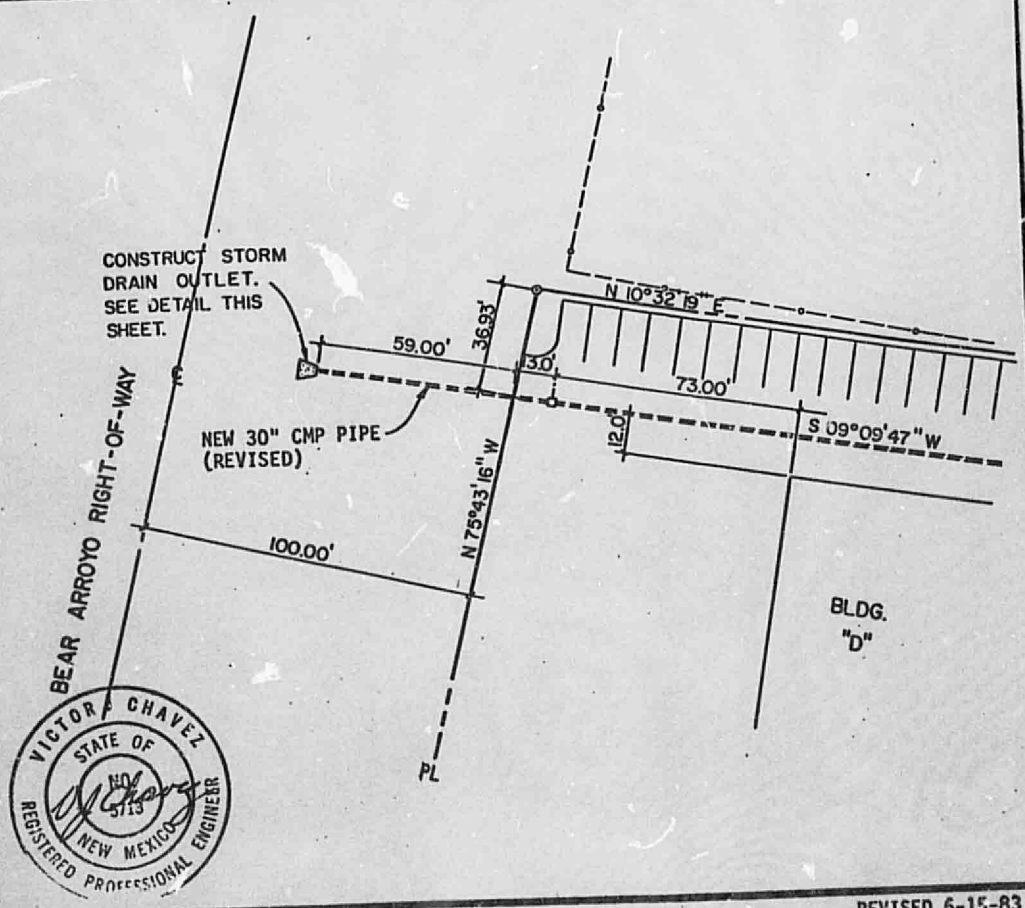
C-12 (Revised)

APPROVALS	NAME	DATE	TITLE: ALBUQUERQUE BUSINESS PARK PARCEL "A" ALBUQUERQUE INDUSTRIAL PARK ALBUQUERQUE, NEW MEXICO
A.C.E./DESIGN			
INSPECTOR		12-22-83	PERMIT NO. / SHEET 1 OF 2 / MAP NO.
A.C.E./FIELD			

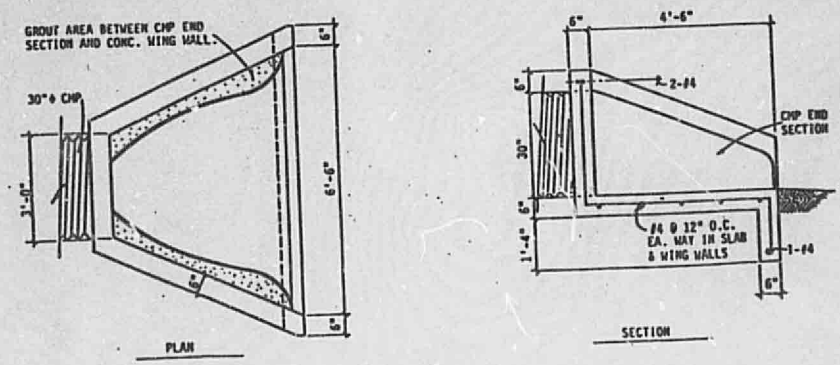
THIS MICROIMAGE IS THE BEST POSSIBLE REPRODUCTION DUE TO THE POOR QUALITY OF THE ORIGINAL DOCUMENT.

CITY OF ALBUQUERQUE

DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY



REVISED 6-15-83



STORM DRAIN OUTLET

N.T.S.

REVISED 6-15-83

APPROVALS	NAME	DATE	TITLE: ALBUQUERQUE BUSINESS PARK PARCEL "A" ALBUQUERQUE INDUSTRIAL PARK ALBUQUERQUE, NEW MEXICO	
A.C.E./DESIGN	[illegible]	29 Jun 83		
INSPECTOR	[illegible]	12-22-83	PERMIT NO.	MAP NO.
A.C.E./FIELD	[illegible]	12/22/83	SHEET 2 OF 2	

PLAN/PLATS

ON

FILE

1400

HYDROLOGY E17/D6 TWO PLANS

E 17/07

2 PLANS

DRAINAGE ANALYSIS

PARCEL 2, LOT D-4

ALBUQUERQUE INDUSTRIAL PARK

PREPARED FOR:

RYMAR ENTERPRISES INC

125 EUBANK NORTHEAST

ALBUQUERQUE, NEW MEXICO

PREPARED BY:

HALL SURVEYING CO.

2625 PENNSYLVANIA N.E.

ALBUQUERQUE, NEW MEXICO

DRAINAGE ANALYSIS FOR PARCEL 2, LOT D-4, ALBUQUERQUE INDUSTRIAL PARK

INDRODUCTION

The land for proposed development lies in Section 26, T. 11 N., R. 3 E., N.M.P.M., and is bounded on the South by Bear Canyon Arroyo, on the West by the Fraternal Order of Police, on the North by Lot D-4, Parcel 1 (a vacant lot), and on the East by Interstate 25 Frontage Road. The nearest City Street is Kircher Blvd. N.E. which lies West of the property approximately 750 feet. A brief picture of the property can be seen on the City Zone Atlas Page E-17-Z.

The developer plans to construct a 95' X 365' warehouse with parking and loading docks. There are seven concrete pipe, 3 foot in diameter, that lie in the old alignment of Bear Canyon Arroyo. However, there is no runoff from the arroyo through the pipe. Therefore, the culverts are no longer necessary and this project should remove the culverts to facilitate construction.

The watershed area is easily defined by man-made structures on all sides. I-25 Frontage Road, which is directly East of the property, effectively blocks off any runoff coming in from the East. There is also a road on the North that is built above natural ground directing runoff to the West. On the West is a berm about 3.5 feet high routing the runoff thru the culverts lying in the old alignment of Bear Canyon Arroyo. Finally, the arroyo itself lies on the South directing the runoff toward Kircher Blvd. N.E. This small well-defined watershed area contains only 2.5 acres.

EXISTING DRAINAGE ANALYSIS CALCULATIONS

GIVEN

Watershed Area = 2.5 Ac.
Slope of Land = 2%
Vegetation is slight, some grass mixed with weeds.
Soil type is embudo, sandy loam
Runoff coeficient = 0.30
Flow distance = 500' overland
Overland "n" = 0.30
Overland Velocity = 0.50 $\frac{\text{in. ft.}}{\text{sec}}$

CALCULATIONS

Tc = 13.5 min from Nomograph

Runoff Velocity = $\frac{500 \text{ ft.}}{13.5 \text{ min.}} \times \frac{1 \text{ min.}}{60 \text{ sec.}}$ = 0.6 ft./sec.

$I_{10} = \frac{91}{t+24}$ = 2.43 in./hr.

$I_{100} = \frac{189}{t+25}$ = 4.91 in./hr.

Q_{10} = CIA = (0.30) (2.43 in./hr.) (2.5 Ac.)
Q_{100} = CIA = (0.30) (4.91 in./hr.) (2.5 Ac.)
Q_{10} = 1.82 cfs
Q_{100} = 3.7 cfs

AFTER DEVELOPMENT

Area = 2.5 Ac.
Paving or roof over entire area
Runoff Coef. = 1.0
Flow distance = 750 feet
Overland "N" = 0.02
Slope varies 2% - 10%
Use Average of 3%

CALCULATIONS

Tc = 4 min. from Nomograph

Runoff Velocity = $\frac{750}{4 \times 60}$ = 3.1 ft./sec.

Probably a little fast use 2.5 ft./sec.

Tc = $\frac{750}{2.5 \times 60}$ = 5 min.

$I_{10} = \frac{91}{t+24} = \frac{91}{29}$ = 3.14 in./hr.

$I_{100} = \frac{189}{t+25}$ = 6.3 in./hr.

Q_{10} = 7.84 cfs
Q_{100} = 15.75 cfs

FIGURE II-6

NOMOGRAPH FOR TIME OF CONCENTRATION

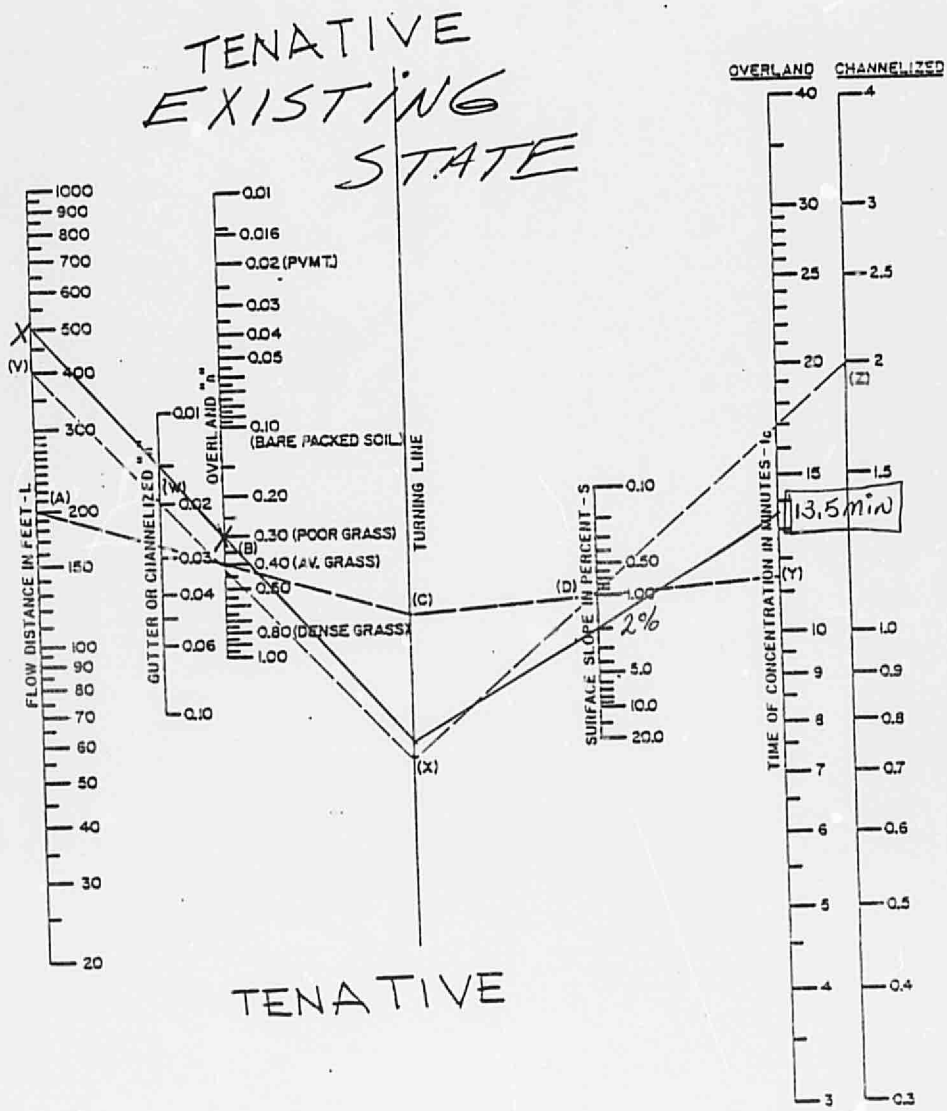
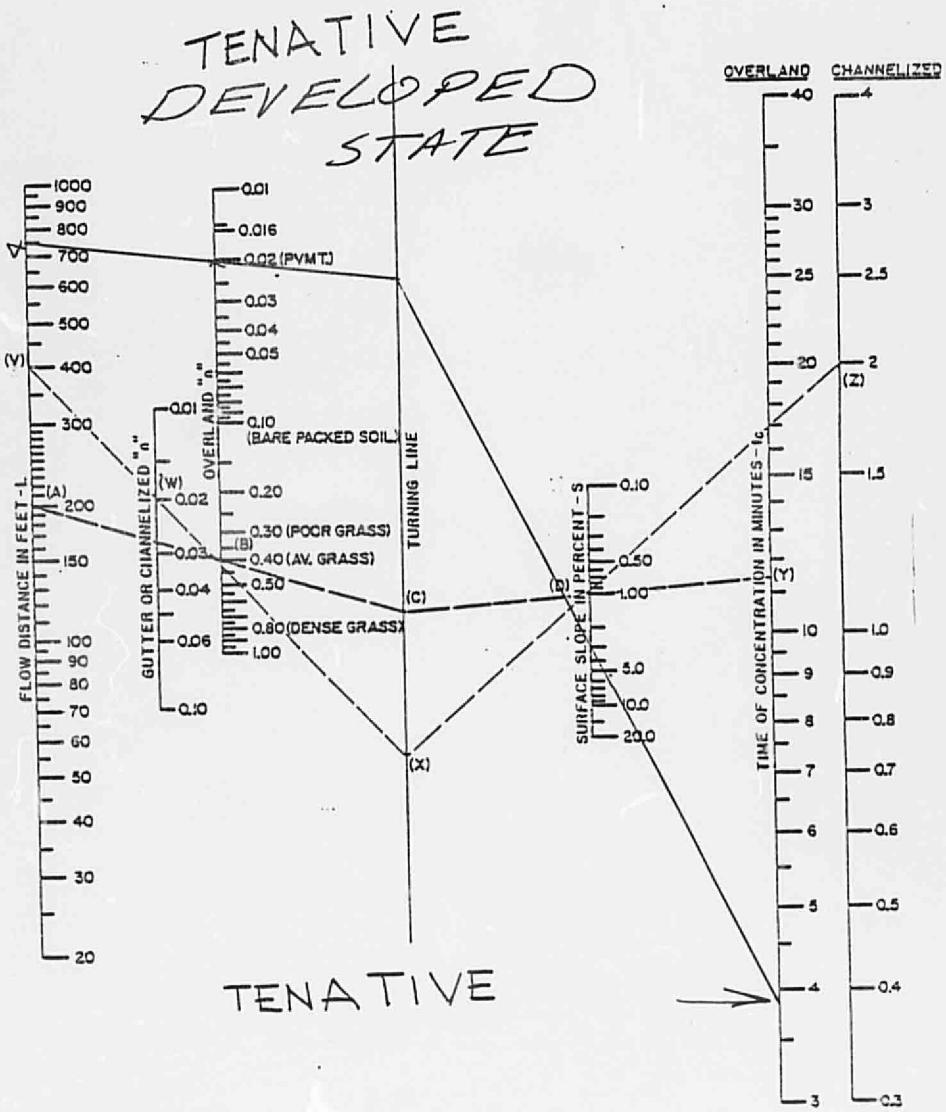


FIGURE II-6

NOMOGRAPH FOR TIME OF CONCENTRATION



HYDROGRAPH INFORMATION

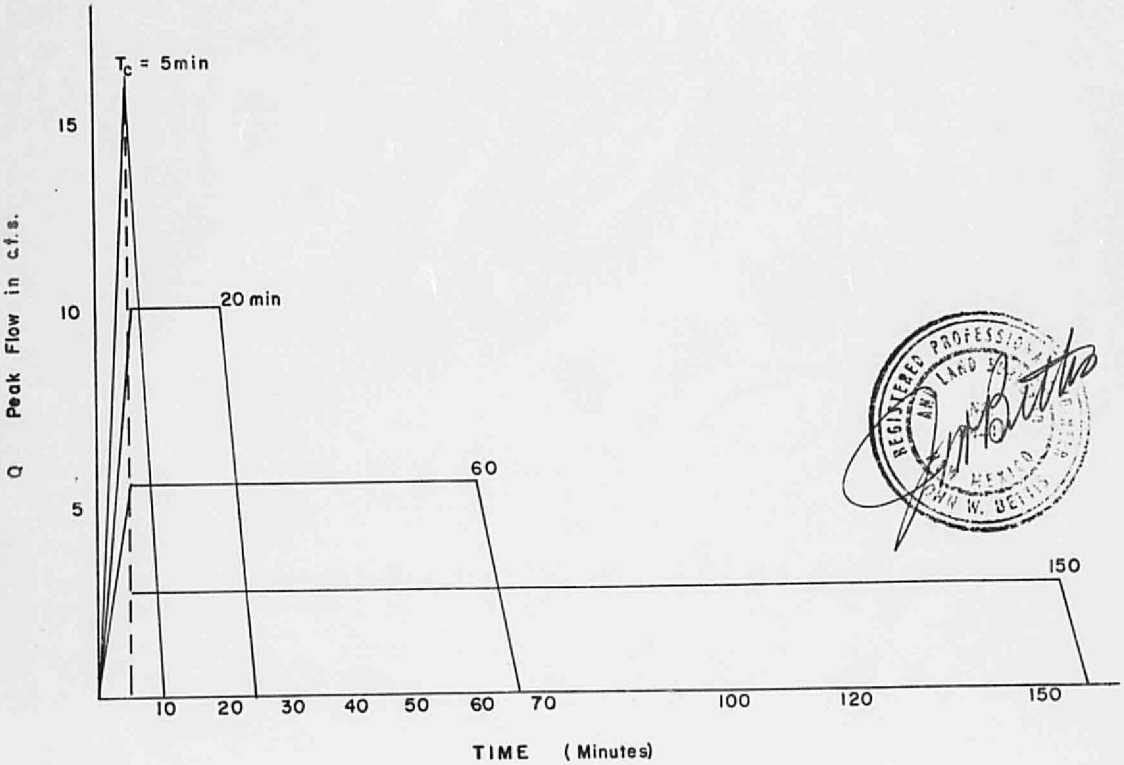
$$I = \frac{189}{t+25}$$

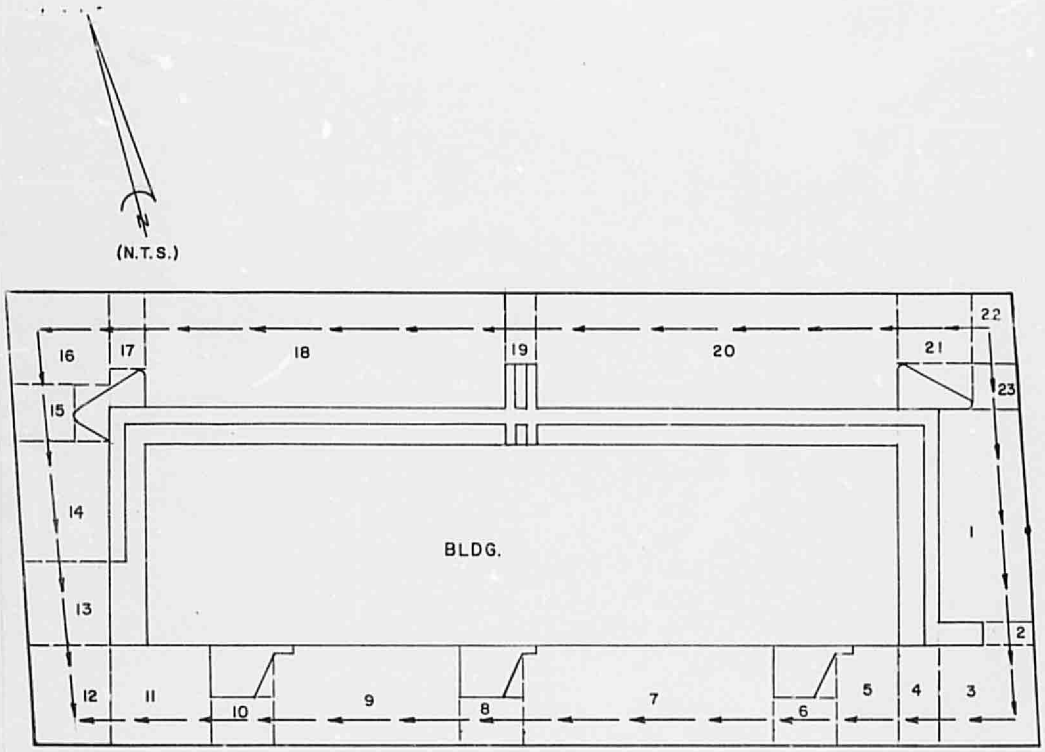
Tc 5 minutes

Rainfall Duration
15
30
60
90

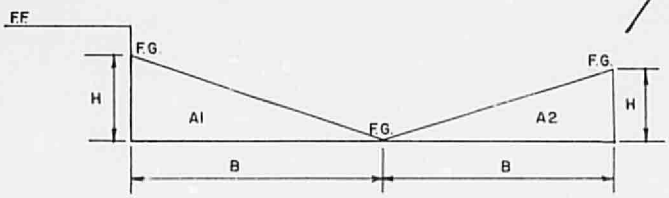
Rainfall Duration	Intensity	Q cfs	Volume
5 minutes	I = 6.3 in/hr	15.75	4725
10 minutes	I = 5.4 in/hr	13.5	8100
15 minutes	I = 4.7 in/hr	11.75	10575
20 minutes	I = 4.2 in/hr	10.50	12600
30 minutes	I = 3.4 in/hr	8.50	15300
40 minutes	I = 2.9 in/hr	7.25	17400
50 minutes	I = 2.5 in/hr	6.25	18750
60 minutes	I = 2.2 in/hr	5.5	19800
90 minutes	I = 1.64 in/hr	4.10	22140
120 minutes	I = 1.3 in/hr	3.25	23400
150 minutes	I = 1.1 in/hr	2.75	24750
180 minutes	I = .92 in/hr	2.02	21816

MODIFIED RATIONAL METHOD HYDROGRAPH





TYPICAL VOLUME CALCULATION



NOTE: 2 SECTIONS PER VOLUME

A1 = 1/2 x H x B = AREA 1
A2 = 1/2 x H x B = AREA 2
TOTAL AREA A

$$\frac{\text{TOTAL AREA A} + \text{TOTAL AREA B}}{2} = \text{MEAN AREA}$$

MEAN AREA x LENGTH = VOLUME

1 2 3 5