

IMPORTANT MESSAGE

FOR CARLOS
DATE 23 Dec 87 TIME 1120 A.M.
P.M.

WHILE YOU WERE AWAY

M GENIE CASTILLO
OF CID
PHONE NO. 764-1632 or 1628

TELEPHONED	☒	RET'D YOUR CALL	☐
PLEASE CALL	☒	URGENT	☐
WILL CALL AGAIN	☐	WANTS TO SEE YOU	☐

MESSAGE 4-6-88 1:55

Ismael
836-4482

SIGNED GSL

Do not
microfilm this
file

CAM

12-13-88



12-18-87



12-18-87



62-18-87



10-9-87



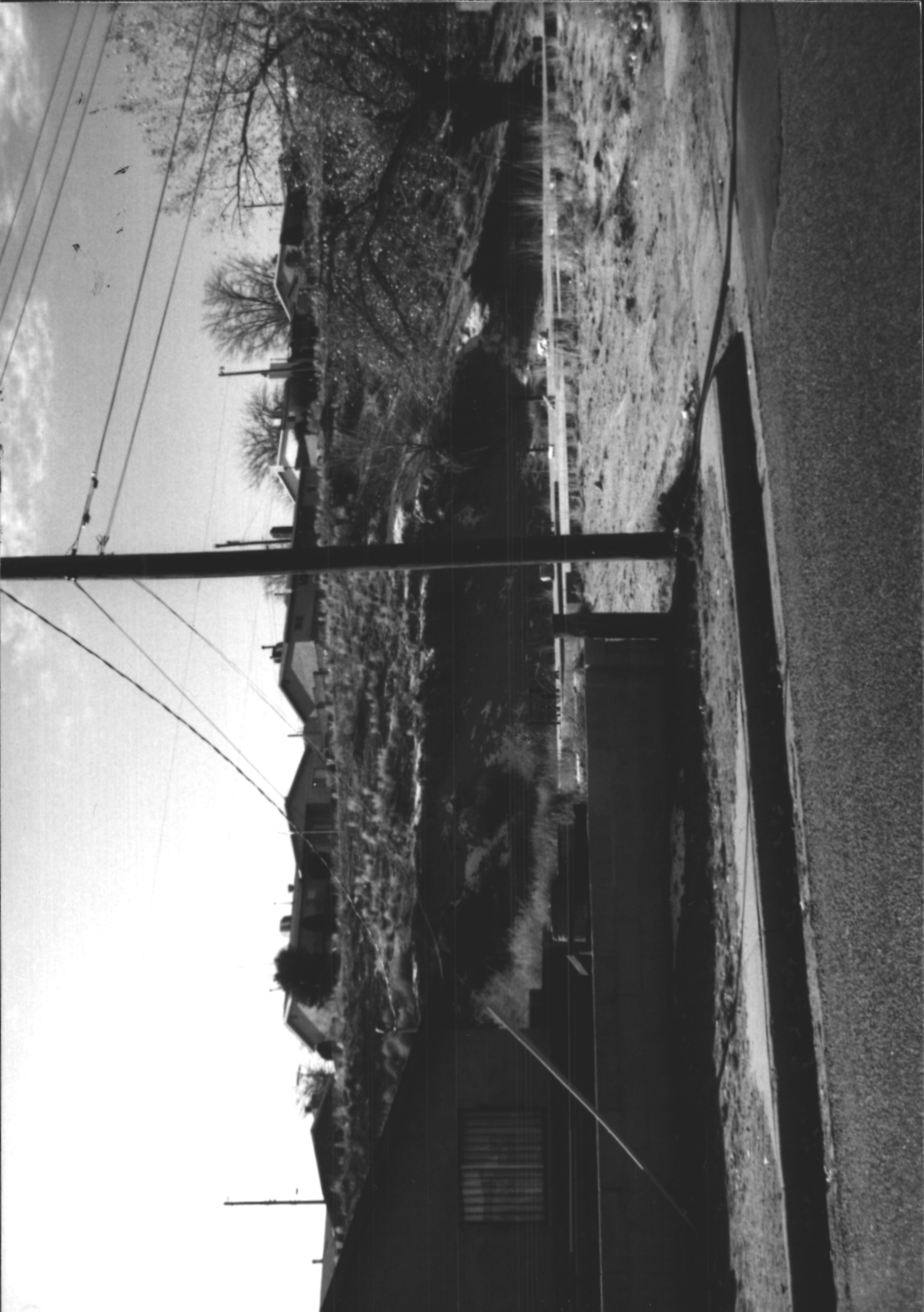
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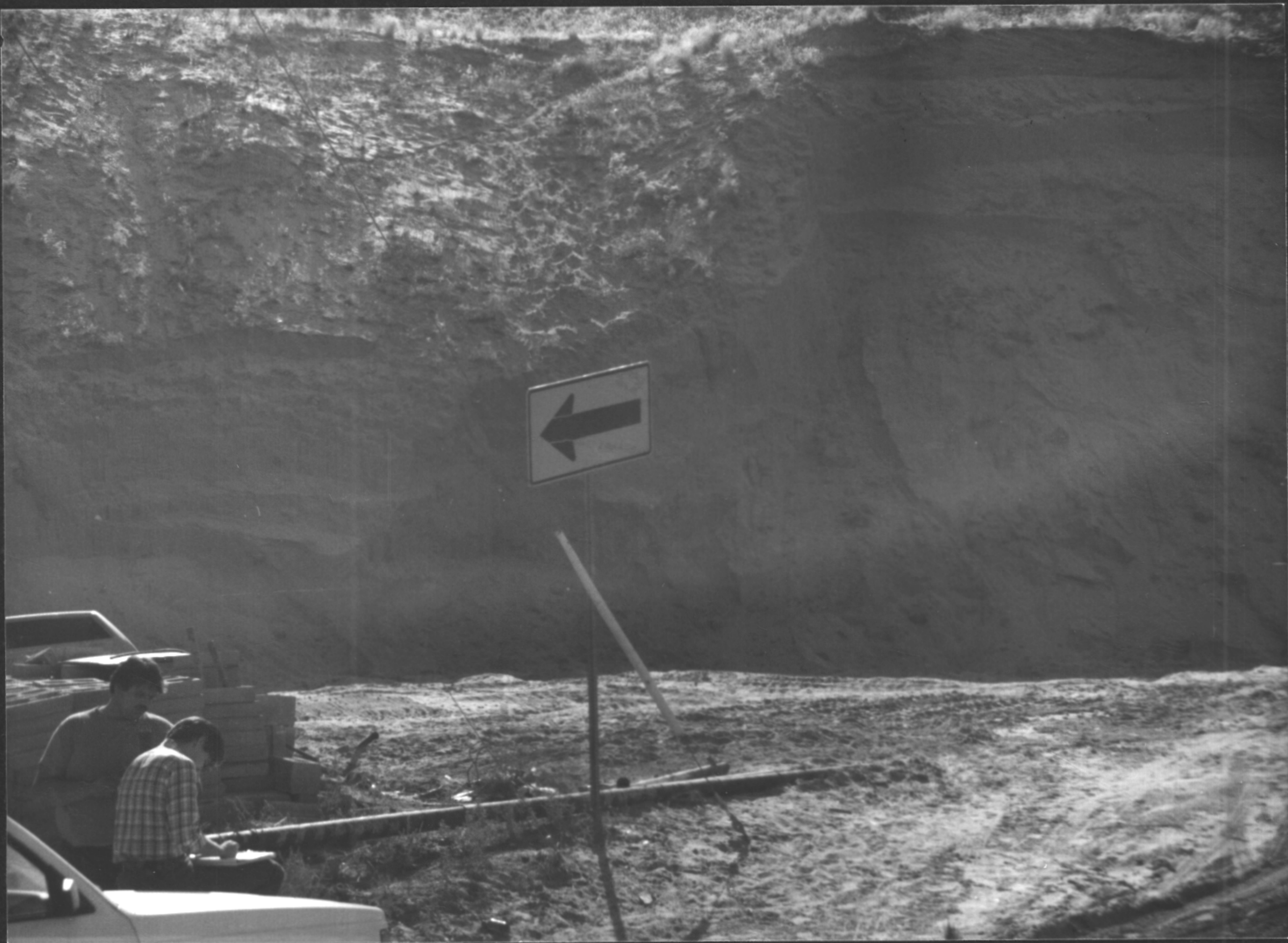
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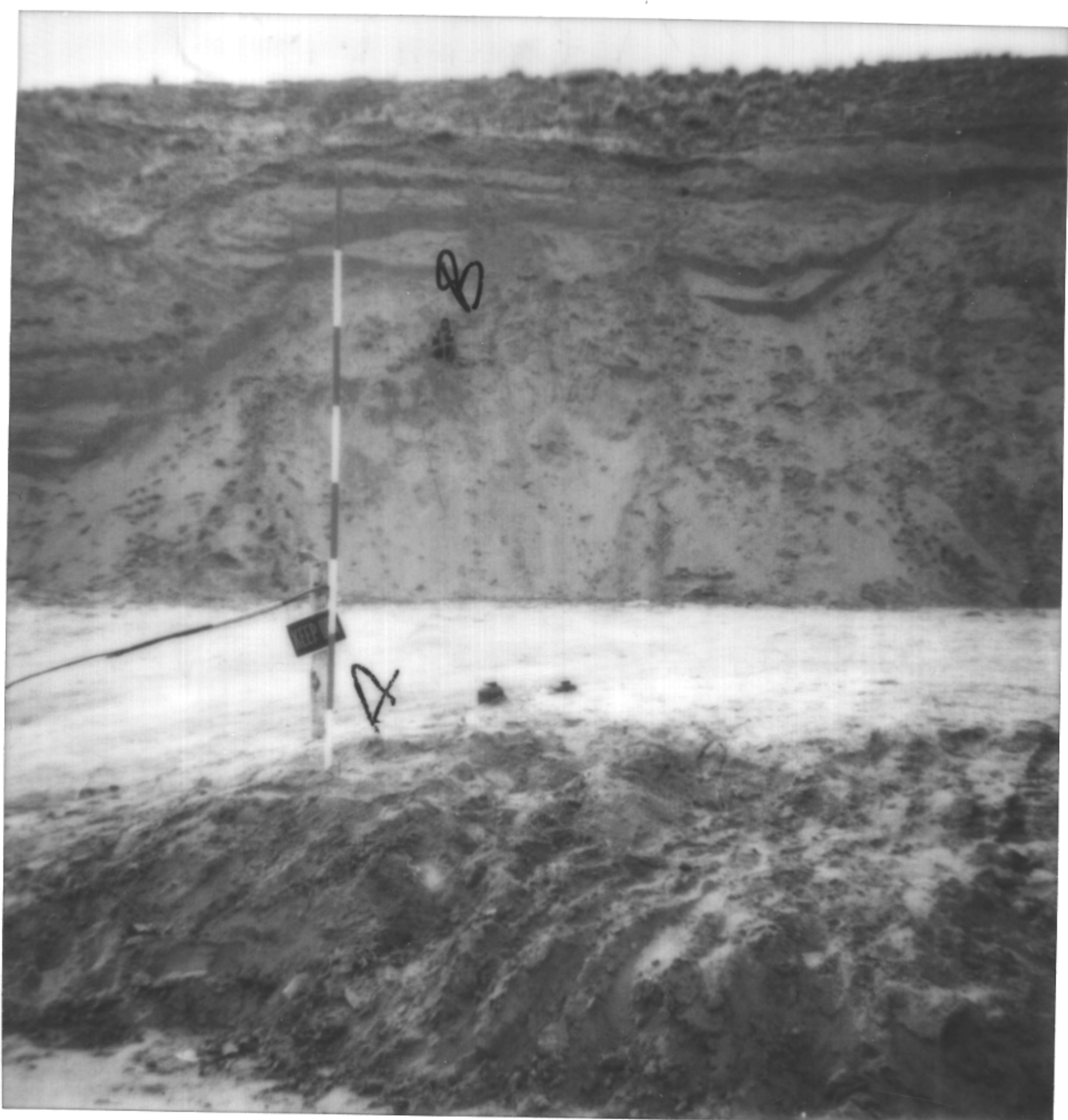


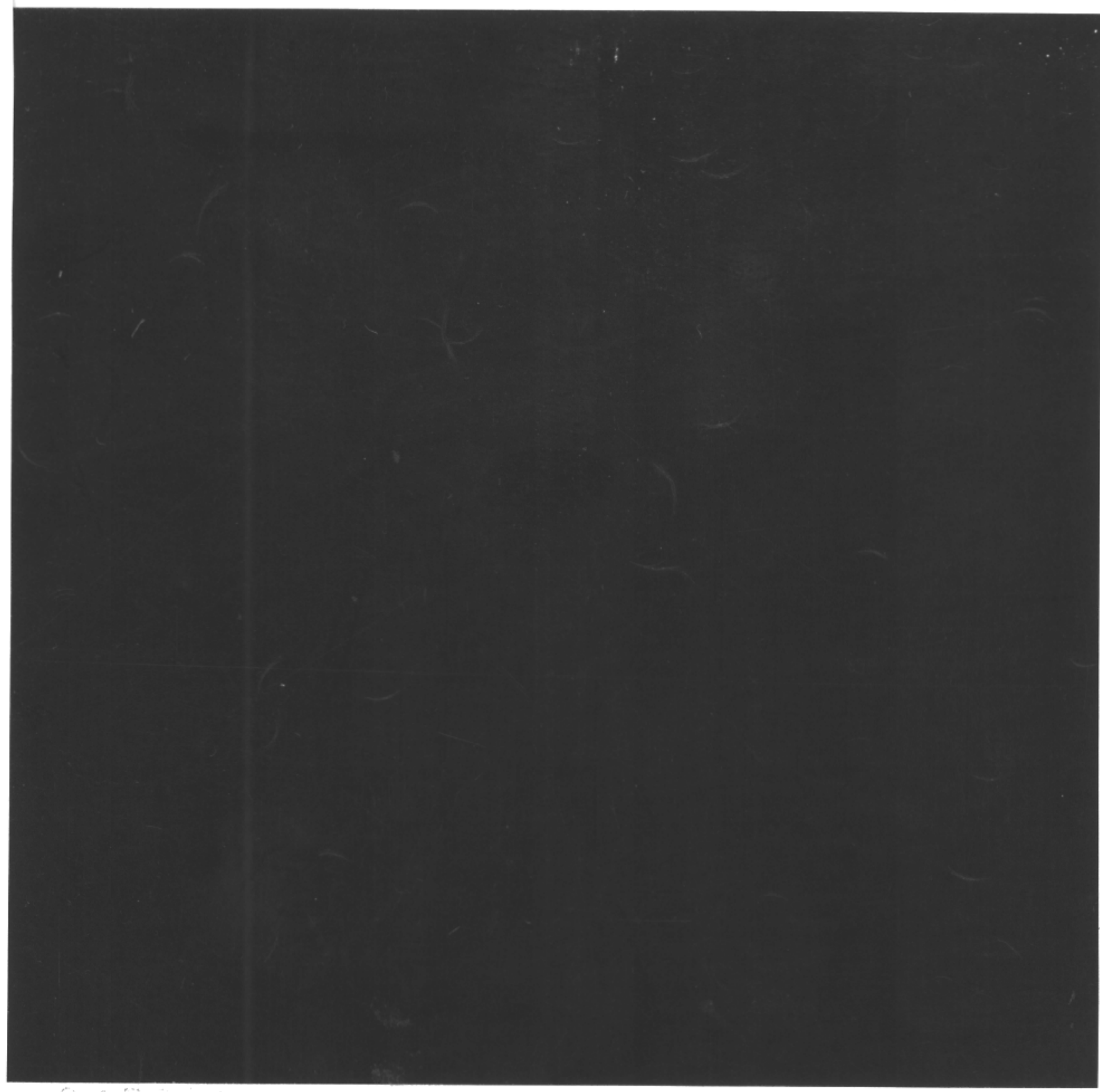








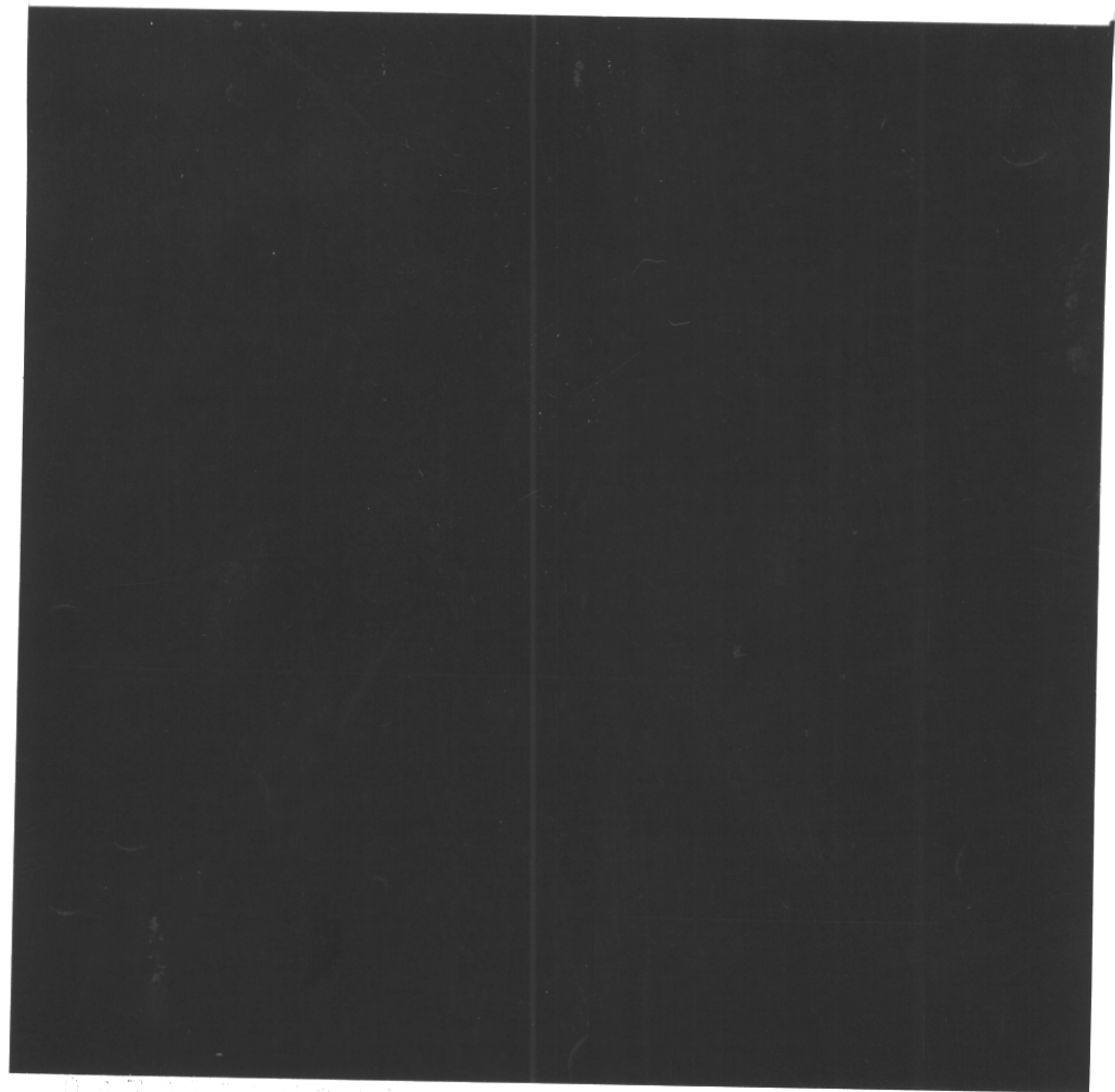




04702100204

POLAROID-9

13 NOV. 87



04702100204

POLAROID-9

13 NOV 87
LOOKING AT POINT "B" FROM
POINT "C"

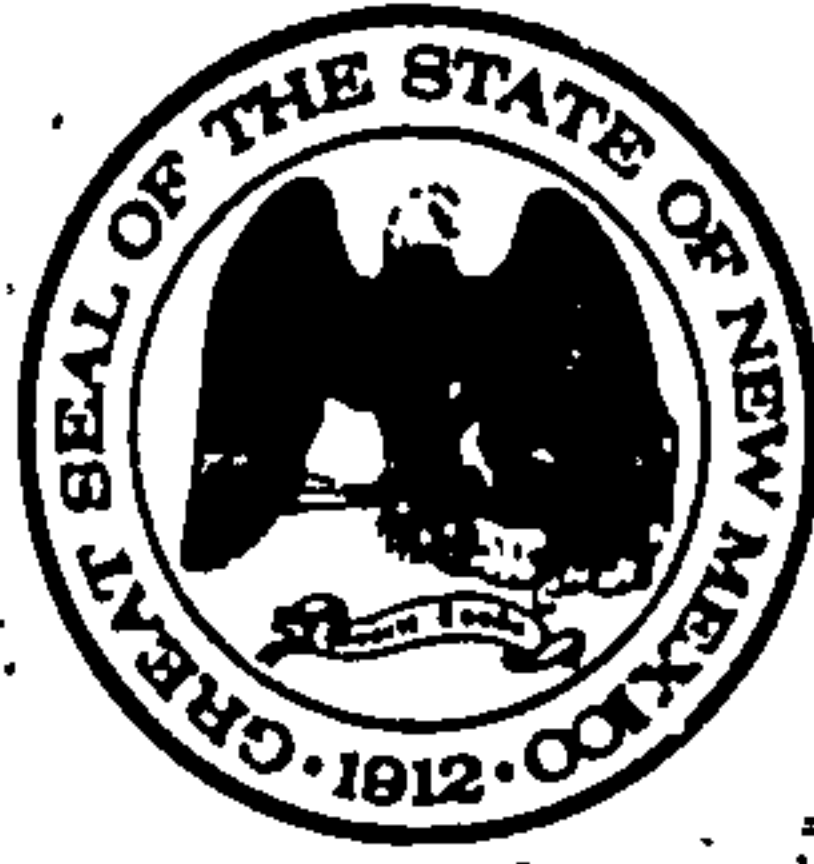


04702100204

POLAROID-9

13 NOV 87 LOOKING AT POINT "B"
FROM BEHIND POINT "A"

STATE OF NEW MEXICO



COUNTY OF BERNALILLO

IN THE METROPOLITAN COURT

STATE OF NEW MEXICO

VS.

NO. CR 804-88

Isamel Perea

Defendant(s)

JUDGMENT

- per finding of culpability

Improper excavation -

90 days BCDC deferred

\$ 300 fine suspended

90 days unsupervised probation

conditions:

- no further excavation at the location in question

- followup report to be submitted to the City of Albuquerque through Eugene Custillo w/in 30 days

Date

May 9th, 1988

METROPOLITAN COURT JUDGE

Div. 1

4-12-88

Questions For Burke

1. Were you shown my Jan 28, 1988 letter to Ismael Perez?

2. Were you shown pictures of the excavation?

3. Exactly where was the analysis done of the slope?

4. What is a Brunton Compass? How was the slope measured?

5. You used USGS contours - does this match the 1972 topo map.

6. You stated that "loss of cohesion due to drying or wetting is not likely along this surface. What is meant by this.

Can an industrial build on the lot above Mr. Perez's lot? Mr. Perez's actions (excavation) affect the ability to build on the upper part of the slope?

8. How Mr. Perez's actions reduce the safety of the existing house on top of the slope?

Need to see smaller by Burke

METROPOLITAN COURT
401 Roma, N.W.
Albuquerque, New Mexico

STATE OF NEW MEXICO,
-vs-

Pena Samuel

Case No.

CR 804-88

Date of Notice:

4-4-88

NOTICE OF HEARING

TO:

TO:

A hearing date in Metropolitan Court is set on:

Charge:

Fail Comply BC Bdd Code

Day:

Monday

Date of Offense:

9-29-87

Date:

May 9, 1988

Time:

2:30

Judge:

Gentles

Courtroom Number:

401

Mailed on:

Officer or Complainant

() District Attorney

NOTE: You and any witnesses you may have must report at least five (5) minutes before the hearing time to the Call Clerk. If you have any questions, bring this notice in person to the Clerk of the Court prior to the hearing.

WHITE — FILE GREEN — OFFICER OR COMPLAINANT YELLOW — DEFENDANT PINK — DEFENDANT'S ATTORNEY GOLD — DISTRICT ATTORNEY

METROPOLITAN COURT
401 Roma, N.W.
Albuquerque, New Mexico

STATE OF NEW MEXICO,

-vs-

Perla, Ismael

Case No.

CR 804-88

Date of Notice:

2-2-88

NOTICE OF HEARING

TO:

TO:

A hearing date in Metropolitan Court is set on:

Charge:

Building Code

Date of Offense:

9-29-87

Day:

Monday

Date:

4-4-88

Time:

230

Judge:

Mentry

Courtroom Number:

401

Mailed on:

2-2-88

Officer or Complainant

Eugenio Castillo Bldg 4
Inspt.

() District Attorney

NOTE: You and any witnesses you may have must report at least five (5) minutes before the hearing time to the Call Clerk. If you have any questions, bring this notice in person to the Clerk of the Court prior to the hearing.

WHITE — FILE GREEN — OFFICER OR COMPLAINANT YELLOW — DEFENDANT PINK — DEFENDANT'S ATTORNEY GOLD — DISTRICT ATTORNEY



**WESTERN
TECHNOLOGIES
INC.**

8305 Washington Place, N.E.
Albuquerque, New Mexico 87113
(505) 823-4488

Ismael Perea
3840 Evansdale Place NW
Albuquerque, New Mexico 87105

March 22, 1988

Re: Slope Stability
3840 Evansdale Place NW
Albuquerque, New Mexico

Job No. 3228J023

As requested, we have evaluated the stability of the slope located behind the residence at 3840 Evansdale Place NW, Albuquerque, New Mexico. The following letter outlines the scope of our evaluation.

The existing slope angle was measured in several locations using a Brunton compass. Natural slope angles varied from 26.5 to 41.5 degrees. The most common slope angles measured were between 28 and 32 degrees. Vertical slopes up to 5 feet were observed. The length of the slopes was measured with a 100 ft. steel tape. Computed elevation differences were checked against USGS contours and found to be reasonable. The analyzed cross-section was based on this data.

The soils exposed in the slope were visually examined and determined to be primarily free-draining, poorly-graded, fine to medium grained sands with little fines and light cementation. These soils are common on the West Mesa and have been extensively tested. Cohesion generally varies from zero to 400 psf and friction angles vary from 24 to 38 degrees. Cohesion is due in part to light cohesion and in part to apparent cohesion due to moisture. Based on the existing slopes, this study used a cohesion of 200 psf and a friction angle of 28 degrees.

The analysis was conducted using the computer program, SB-SLOPE. This program uses a Simplified Bishop analysis

method. Automatic searches were run to find the lowest factor of safety and the corresponding failure surface. These results are shown on the attached figure.

As can be seen on the figure, the lowest factor of safety is 1.9 and the failure occurs as a toe failure of the small vertical section midway up to slope. If the cohesion is reduced to zero due to drying or wetting of the soils, the safety factor becomes less than one, and this section will fail. It can be determined visually that the area involved in this failure is very small and this failure would be insignificant. A larger, significant failure surface is shown with a safety factor of 2.1. Loss of cohesion due to drying or wetting is not likely along this surface.

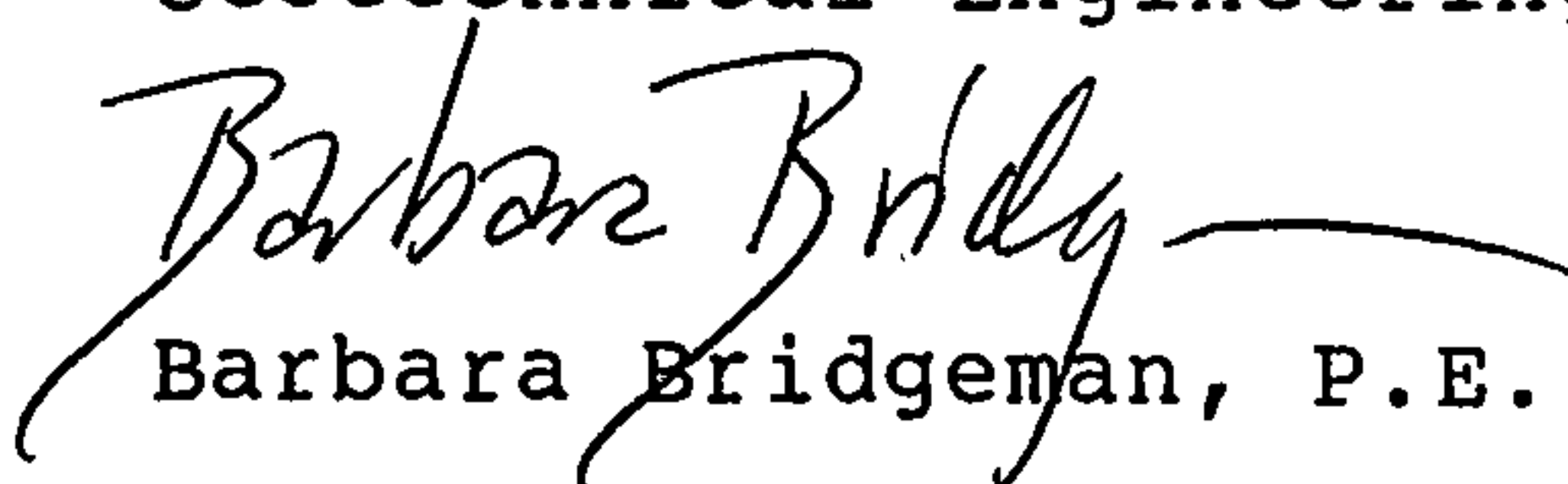
A safety factor of 2.0 is commonly used for design of dams and other embankments and cut slopes are frequently designed using safety factors of 1.5. Based on this, it is our opinion that the slope is stable.

It was not within the scope of this evaluation to determine the erosional properties of the soil. Reduction of the slope due to erosion would not have catastrophic results but could cause infilling of the yard area. Revegetation of the slope will limit erosion.

We are available to answer questions from City personnel concerning this analysis. If you have any questions or require additional services, please contact us.

Sincerely,

WESTERN TECHNOLOGIES INC.
Geotechnical Engineering Services


Barbara Bridgeman, P.E.



SB-SLOPE

Simplified Bishop Slope Stability Analysis

PROJECT: Perea slope

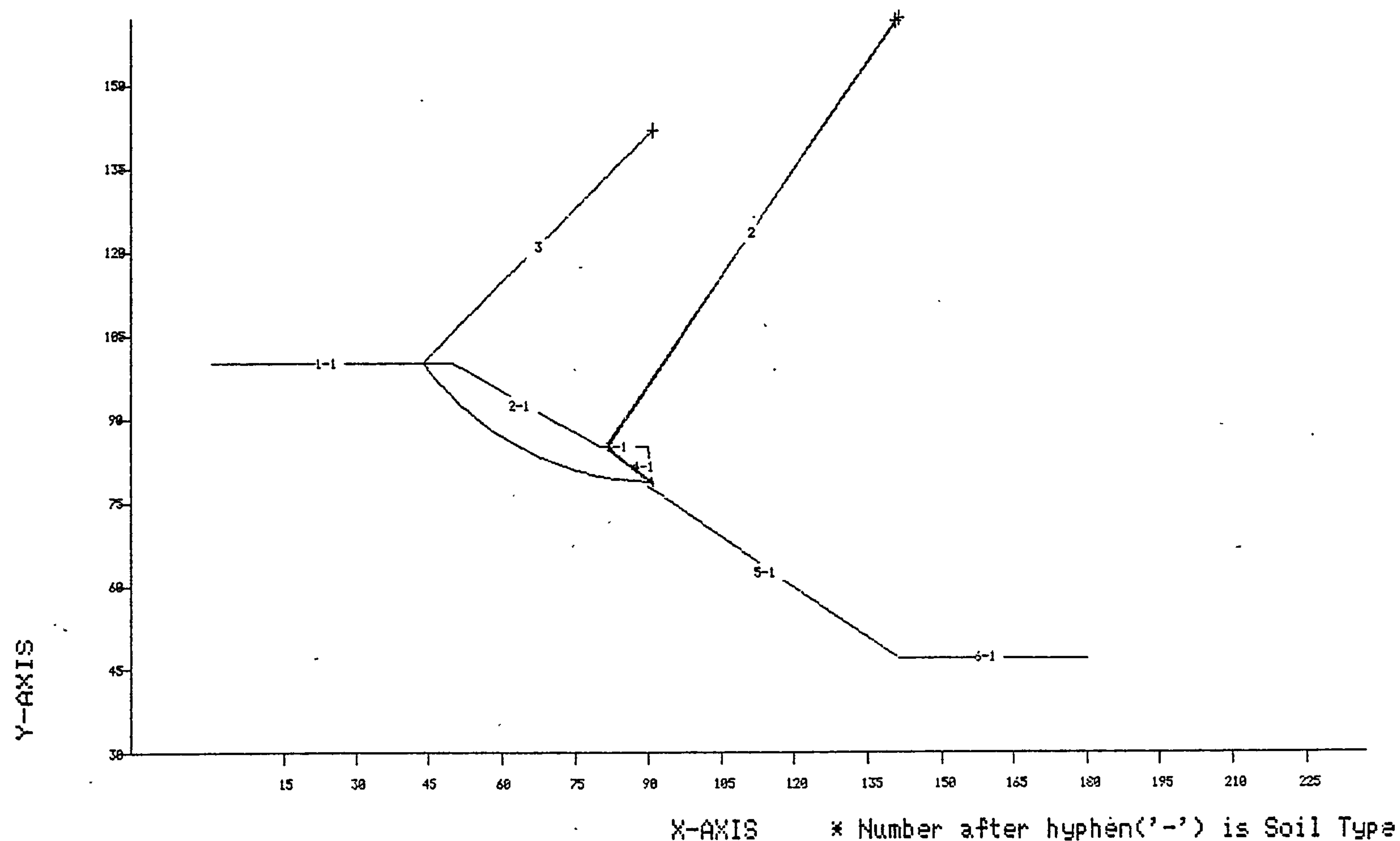
LOCATION: west side

FILE: FSL.5DT

COMPLETE SLOPE CROSS SECTION

SOIL*	DENSITY	COHESION	PHI
1	125.0	200.0	28.0

CIRCLE	X	Y	RADIUS	FS
1	140.6	161.4	96.5	1.97
2	141.2	161.8	97.5	1.92
3	91.0	141.7	63.0	2.14



Western Technologies Inc.

Minutes of
Meeting

March 4, 1988

Reference: 3840 Evansdale Place, NW - Excavation

DRAFT

Attendance:

Gene Castillo, Construction Industries Inspector, Code Administration
Carlos A. Montoya, City/County Flood Plain Administrator
Isamel Perea, Homeowner, 3840 Evansdale Place NW
Tony Lovato
Barbara J. Martinez, Code Specialist

Mr. Perea was handed the letter dated January 28, 1988, Re: Slope Study, from Carlos Montoya to read the requirements that are requested to resolve the situation of a possible endangerment due to a failing slope.

Mr. Perea If you were to check the rest of the neighborhood it has the same slope as my property.

Mr. Montoya We are worried about the possibility of the failing of the slope due to the removal of dirt that has taken place.

The letter was handed to Tony Lovato, and Barbara Martinez for reference.

Mr. Montoya I do not know the extent of the impact if you remove any more of the dirt from the slope that would cause the failure and possibly be dangerous to property or persons.

Mr. Perea The City initiated the whole thing because they dropped the rocks up there.

Mr. Montoya (reference pictures) because of the rocks, this caused you to remove the dirt?

Mr. Perea Yes

Mr. Montoya That does not make any sence, that the rocks would make you remove the dirt.

Mr. Perea Show me the other pictures, this is not the same picture, can you show me on the other picture where the trees are.

Gene Castillo We are asking that you comply with the recommendations on the letter to ensure that there is no danger to life and limb by hiring an engineer to assess the situation.

Mr. Perea You have an engineer! If you go around the whole area it all slopes.

Mr. Montoya I have looked at the area (slope). You can see the area that you have been disturbing (pictures)

Mr. Perea No dirt has been taken of the house. It is my property and I can do what I want with it.

Mr. Montoya I have to agree with you on that. But when it comes to the danger of other property or someones life.

Mr. Perea Other people have done the same thing not just me.

Mr. Montoya We have put a halt on the removal of dirt from the slopes in that area. The issue here is the extent of removed dirt on your property which could possibly cause the slope to fail and endanger a life or property.

Mr. Perea I would not have removed the dirt if I thought it would be of danger to anyone. I have lived there for thirty years and nothing has happened.

Mr. Montoya You have lived there for thirty years why now have you removed the dirt.

Mr. Perea You have not been out there to check the area

Gene Castillo Three times I have checked the area and the removal of the dirt. All we ask is that you obtain an engineer as the letter states and an engineer stamp of approval.

Mr. Montoya I can only make recommendation.

Mr. Perea I will check into it but if I can not afford it you will have to pay for it.

Gene Castillo If this is not resolved in Metro Court we will take it to District Court.

Mr. Montoya Can you imagine if I was a 13 year old boy on a dirt bike riding on your property and the slope fails because of the removal of the dirt, what would happen if I was hurt? It would be your responsibility it is your property. Or if the slope failure was to damage other property.

Mr. Perea That is why I removed the dirt, there are no dirt bikes around my property, they can not ride on it.

Page Three

Mr. Montoya

Your son was standing up on top (pictures reference) and makes a line in the dirt and the whole ting would fall, I don't now how far back it could go before it all fails, I don't know.

Gene Castillo

We are just asking for a engineer to assess the situation referenced in the letter and comply with the requirements.

Mr. Perea

Thats it.

0666B



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

MAYOR
KEN SCHULTZ

CHIEF
ADMINISTRATIVE OFFICER
GENE ROMO

DEPUTY CAO
PUBLIC SERVICES
FRANK MARTINEZ

DEPUTY CAO
PLANNING/DEVELOPMENT
BILL MUELLER

January 28, 1988

Isamel Perea
3840 Evansdale Place, NW
Albuquerque, New Mexico 87105

RE: SLOPE STUDY

Dear Mr. Perea:

The base of the sand banks have been removed from the rear portion of your property. The removal of this base causes the bank to be in an unstable condition. The unstable bank could cause serious damage to life and property.

We therefore request that you retain a soils engineer to assess the situation and make appropriate recommendations. The soil engineer should address the following items.

1. The engineer must be a professional engineer registered in the State of New Mexico. He should be experienced in earth slope stability analysis.
2. Cross sections should be taken to show the sand banks existing geometry.
3. Analysis of the bank soils should be accomplished to determine the soil parameters.
4. The slip plane should be determined.
5. The existing factor of safety should be determined. Due to the grave consequences which could possibly occur a proposed factor of safety should be proposed.
6. The engineer should make recommendations to correct the bank instability and check the final factor of safety.

Ismael Perea
January 28, 1988
Page 2

We believe that an independent, professional engineer can assess the situation and give a fair opinion of the problem. We want to work with you at arriving at a fair solution, however, we are also entrusted with public safety.

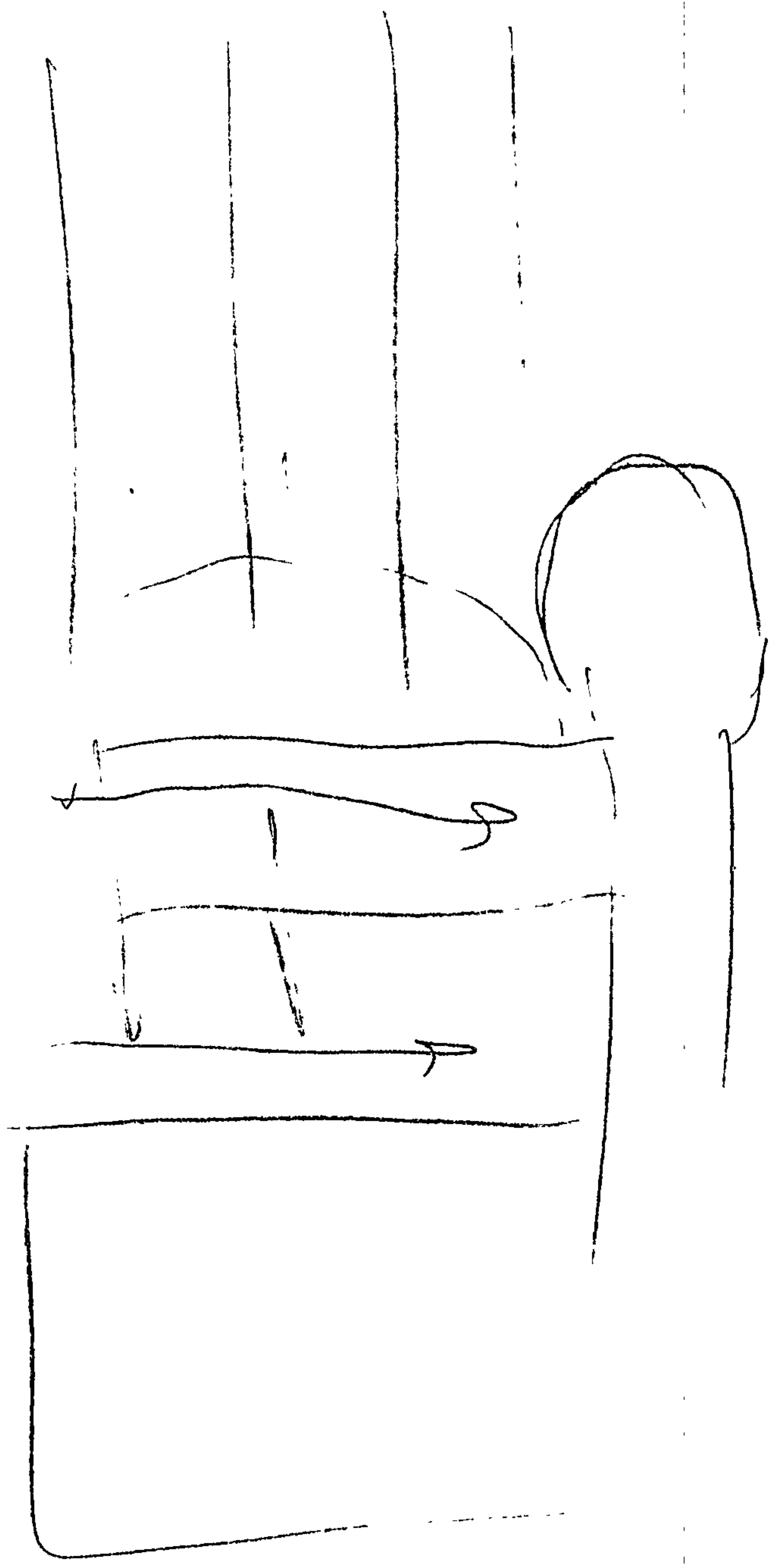
Should you have any questions, or would like to discuss this matter further, please call me at 768-2650.

Cordially,



Carlos A. Montoya, P.E.
City/County Floodplain Administrator

CAM/bsj



Arrest Date:
 Name: **Isamel Perea**
 Address: **3840 Evansdale N.W.**
 D.O.B. **Unknown**
 S.S.N. **Unknown**
 D.L. **Unknown**
 Charge:
 Dock No. **CR804-88**
 Arrest No. **ARR: 1-29-88 830 504**
 Citation No.
 Date Filed **1-15-88**

METROPOLITAN COURT RULE 38
 STATE OF NEW MEXICO
 CITY OF ALBUQUERQUE
 COUNTY OF BERNALILLO

V.
 Defendant(s)

COUNTY OF BERNALILLO
 IN THE METROPOLITAN COURT
 CRIMINAL COMPLAINT

Escavation
 Complainant or Officer: **Eugene F. Castillo**

The undersigned, being duly sworn, upon his oath, complains and says that on or about
 the **29th** day of **September**, **1987**, in the City of **Albuquerque**,
 in the County of **Bernalillo**,

State of New Mexico, the above named defendant(s) did: **Violated U.B.C. Section 2903(a).(b)**
 (Here state the essential facts) **Did not protect escavation so the**
 adjacent soil would not cave in.

PENALTIES: 1) Upon conviction of any such violation,
 such person shall be punished by fine
 of not more than \$300 or by imprisonment
 for not more than 90 days, or by both such fine
 and imprisonment.

Contrary to Section(s) _____ NMSA 1978.
 Subscribed and sworn to before me in the above named
 county of the State of New Mexico this **14** day
 of **January**, 19**88**.

Eugene F. Castillo
 Complainant

[Signature]
 Judge, notary or other officer
 authorized to administer oaths

7081-112
 Title (if any)

Defendant appeared voluntarily in response to New Mexico Uniform Citation No. _____ issued by _____
(Name of officer)
(Name of officer's department)
(Do not have complainant sign at right whenever defendant appears voluntarily in response to New Mexico Uniform Citation. Attach copy of citation to this page as permanent record.)

Approved:
 [Signature]
 DISTRICT ATTORNEY OR LAW ENFORCEMENT OFFICER

CASE BRIEF

DATE: January 14, 1988

ADDRESS OF VIOLATION: 3840 Evansdale N.W.

NATURE OF VIOLATION: Excavation with Report

PROPERTY OWNER: Ismali Perea

LEASEE OR LEASOR: _____

NAME OF BUSINESS: _____

SECTION NO.: 2903.(a).(b) Uniform Building Code

EXPLANATION: Excavation was not protected so as adjacent soil
would not cave in

NAMES & ADDRESSES
OF WITNESSES:
(WITHIN IMME-
DIATE AREA)

BUSINESS DESCRIPTION:

CHRONOLOGY OF EVENTS:

09/29/87	Complaint reviewed.
10/04/87	Premises inspected, sign of excavation taking place, removing dirt from hill south side of property, see attached photos.
10/05/87	First letter sent advising to stop excavation and correction action needed.
10/16/87	Inspected premises, no body home, left cards, no sign of excavation taking place.

11/03/87

Discussion with Mr. Perea and family, explained ordinance advising that our department needed Engineering Report covering the safety of the excavation. Mr. Perea states he was not excavating therefore, no Report was needed.

I explained to Mr. Perea that evidence of excavating was evident as hill was not in its normal form. Mr. Perea and family were very belligerent and to catch him in the process of taking dirt from the hill.

11/18/87

Inspected premises, no excavation taking place. No body home, left card.

12/07/87

Discussion with Mr. Perea, explained that our office needed to talk regarding the safety of the excavation. Will come in our office.

12/23/87

Mr. Perea has made no effort to contact our office. Send final letter.

01/07/88

Mr. Perea called, will come in our office to discuss the excavation Friday or Monday.

01/13/88

Mr. Perea has not called or answered any of our letters, proceeding with legal action.

0049L

CITY OF ALBUQUERQUE

ALBUQUERQUE, NEW MEXICO

11
11
11
11
11

INTER-OFFICE CORRESPONDENCE

December 17, 1987

REF. NO. _____

TO: Carlos Montoya, City Engineer
FROM: Eugene Castillo, Complaints Officer, Code Inspections Div.
SUBJECT: Excavations



As per our conversation on December 16, 1987 and subsequent with Assistant City Attorney Doug Frazier, concerning the excavation located at the Evandales Addition, I would request from you the following.

- 1). Make inspection of "slope" to determine if any violation of your ordinance exists.
- 2). Take appropriate action as per your regulations.
- 3). Notify our department of any action or inaction on your part.

Thank you for your prompt attention on this matter.

EC:lh
0036L

CITY OF ALBUQUERQUE

DRAINAGE COMPLAINT REPORT

Location .. 3840 Evensdale NW .. Sheet of

Reported by: .. Zonning .. Phone 764-1666

Address: 3840 53rd NW .. Ext.

Complainant .. Phone

Address .. Ext.

Taken by: C. Montoya .. Date 10-7-87

COMPLAINT .. Fill material being placed
on lot could possibly damage
street R/W

Referred to:

INVESTIGATION — CAUSE .. REMOVING MASS QUANTITIES OF
EARTH FROM EMBANKMENT, POSSIBLY UNDERMINING
PUBLIC STREET IN THE EVENT OF RAINFALL.

Recommendation: STOP REMOVING MATERIAL FROM
EMBANKMENT TO PREVENT POTENTIAL DAMAGE.

Investigated by: Rick Duran & C.A.M. .. Date 10-9-87

Action taken: RED TAGGED INDIVIDUALS REMOVING
MATERIAL (PAVE TRUCKING).

Taken by: Rick & C.A.M. .. Date 10-9-87

Follow Up: Talked to Bob Williams from Code Admin. on 10/16/87
and also to Anthony Lopez from Street Maintenance both will
send inspectors to red tag site. Rick Duran was also instructed
to red tag both sites in question.

Taken by: .. Date

Zone Atlas

Drainage Map

Plan No.

Project No.

Date

Complaint Report No. K-11-C-1

Date

Approved

12/1/87
Rick Duran
C.A.M.

CITY OF ALBUQUERQUE

DRAINAGE COMPLAINT REPORT

Location .. 3840 Evansdale NW .. Sheet .. of ..

Reported by: .. Z. DANNING .. Phone .. 764-1666 ..

Address: .. 3840 53RD NW .. Ext.

Complainant .. Phone ..

Address .. Ext.

Taken by: .. C. Montoya .. Date .. 10-7-87 ..

COMPLAINT .. Fill material being placed on lot could possibly damage street R/W ..

Referred to: ..

INVESTIGATION — CAUSE .. REMOVING MASS QUANTITIES OF EARTH FROM EMBANKMENT, POSSIBLY UNDERMINING PUBLIC STREET IN THE EVENT OF RAINFALL ..

Recommendation: .. STOP REMOVING MATERIAL FROM EMBANKMENT TO PREVENT POTENTIAL DAMAGE ..

Investigated by: .. Rick Duran & C.A.M. .. Date .. 10-9-87 ..

Action taken: .. RED TAGGED INDIVIDUALS REMOVING MATERIAL (PAVE TRUCKING) ..

Taken by: .. Rick & C.A.M. .. Date .. 10-9-87 ..

Follow Up: .. Talked to Bob Williams .. Code Address on 10-27 .. and also to Rick Duran .. Rick Duran was also instructed to red tag all the ..

Taken by: .. Date ..

Zone Atlas

Drainage Map

Plan No.

Project No.

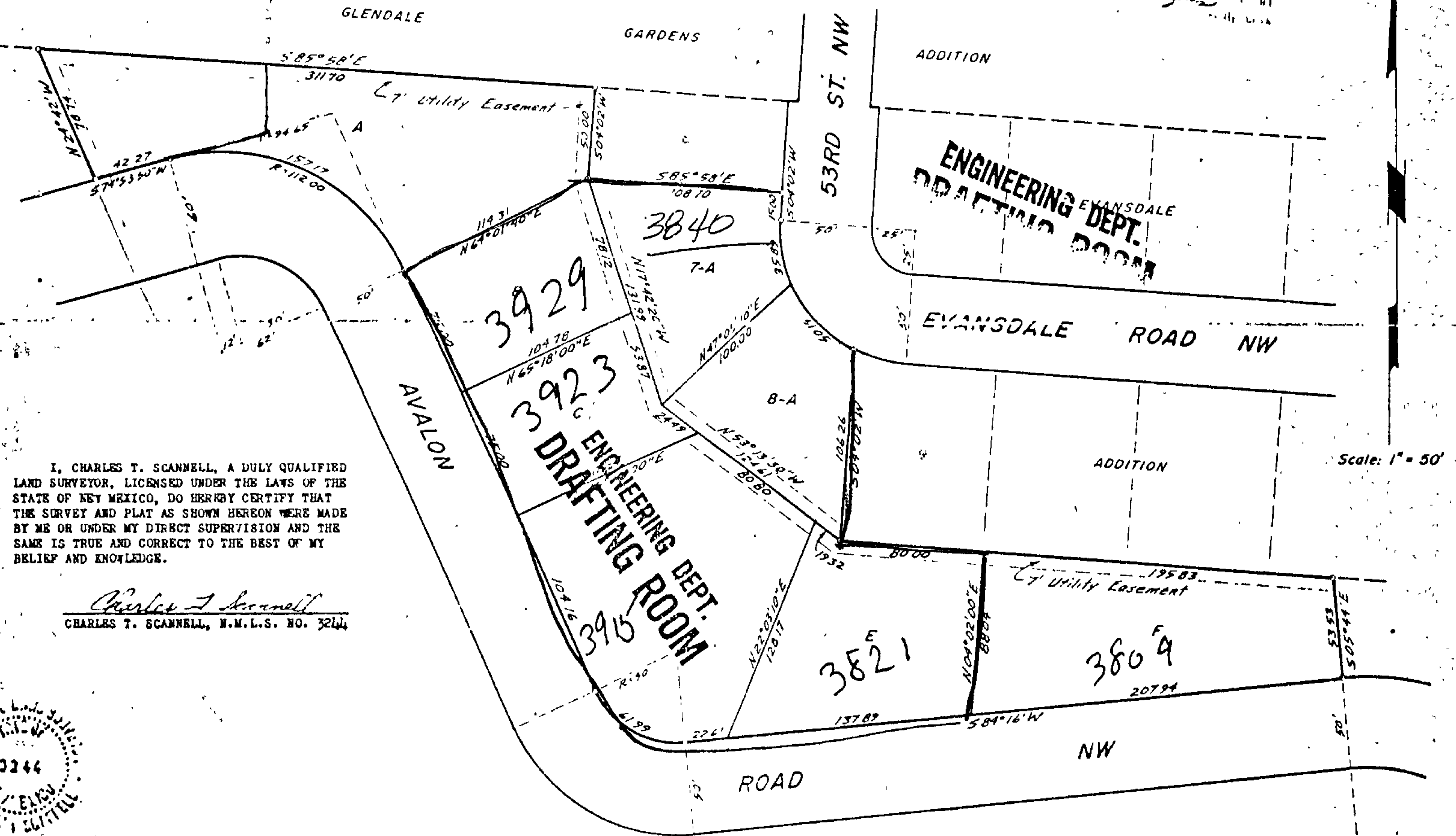
Complaint Report No.

Date

Approved

10-10-87
Rick Duran

SUBDIVISION OF TRACT "B"
AND
REPLAT OF LOTS 7 AND 8
OF
EVANSDALE
A SUBDIVISION IN THE CITY OF
ALBUQUERQUE, NEW MEXICO



I, CHARLES T. SCANNELL, A DULY QUALIFIED LAND SURVEYOR, LICENSED UNDER THE LAWS OF THE STATE OF NEW MEXICO, DO HEREBY CERTIFY THAT THE SURVEY AND PLAT AS SHOWN HEREON WERE MADE BY ME OR UNDER MY DIRECT SUPERVISION AND THE SAME IS TRUE AND CORRECT TO THE BEST OF MY BELIEF AND KNOWLEDGE.

Charles T. Scannell
CHARLES T. SCANNELL, N.M.L.S. NO. 3244

THE FOREGOING SUBDIVISION OF THAT CERTAIN TRACT OF LAND SITUATE IN THE CITY OF ALBUQUERQUE, NEW MEXICO, BEING AND COMPRISING A SUBDIVISION OF TRACT LETTERED "B" AND A REPLAT OF LOTS NUMBERED SEVEN (7) AND EIGHT (8) OF EVANSDALE, A SUBDIVISION IN THE CITY OF ALBUQUERQUE, NEW MEXICO, AS THE SAME ARE SHOWN AND DESIGNATED ON THE PLAT OF SAID EVANSDALE SUBDIVISION FILED IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY, NEW MEXICO, ON APRIL 3, 1947.

SURVEYED, PLATTED, AND SUBDIVIDED, AS SHOWN HEREON, COMPRISING LOTS 7-A AND 8-A, AND LOTS A, B, C, D, E AND F OF SUBDIVISION OF TRACT "B" AND REPLAT OF LOTS 7 AND 8 OF EVANSDALE, A SUBDIVISION IN THE CITY OF ALBUQUERQUE, NEW MEXICO, IS WITH THE FREE CONSENT AND IN ACCORDANCE WITH THE WISHES AND DESIRES OF THE UNDERSIGNED OWNERS AND PROPRIETORS THEREOF; AND THE OWNERS DO HEREBY DEDICATE THE EASEMENTS SHOWN ON THIS PLAT, INCLUDING EASEMENTS FOR OVERHANG OF SERVICE WIRES FOR POLE TYPE UTILITIES AND UNDERGROUND OR BURIED SERVICE WIRES, INCLUDING THE RIGHTS OF INGRESS AND EGRESS TO AND FROM SAID EASEMENTS AND THE RIGHT TO TRIM INTERFERING TREES THEREON.

Frank L. Evans
FRANK L. EVANS

OWNERS AND PROPRIETORS

Vera Lacy Evans
VERA LACY EVANS

STATE OF NEW MEXICO)
COUNTY OF BERNALILLO) SS

ON THIS 12TH DAY OF July, 1963, BEFORE ME, A NOTARY PUBLIC IN AND FOR SAID COUNTY, PERSONALLY APPEARED FRANK L. EVANS AND VERA LACY EVANS, HIS WIFE, WHO ACKNOWLEDGED THE FOREGOING INSTRUMENT TO BE THEIR FREE ACT AND DEED.

IN WITNESS WHEREOF I HAVE HEREUNTO SET MY HAND AND SEAL ON THIS THE DAY AND YEAR FIRST ABOVE WRITTEN.

MY COMMISSION EXPIRES JANUARY 20, 1964

Orville K. Mathews
NOTARY PUBLIC

APPROVED: July 15, 1963

James J. ...
CITY PLANNING COMMISSION CHAIRMAN

J. ...
EXECUTIVE SECRETARY

APPROVED: 6-24-63

...
DIRECTOR OF PARKS AND RECREATION DEPARTMENT

APPROVED: 6/24/63

William J. ...
CITY ENGINEER

APPROVED: 6-24-63

...
TRAFFIC ENGINEER

APPROVED: 6-24-63

...
MOUNTAIN STATES TEL. & TEL. CO.

APPROVED: 6-25-63

E. T. ...
PUBLIC SERVICE COMPANY OF NEW MEXICO

I, IDA V. MALONE, CITY CLERK OF THE CITY OF ALBUQUERQUE, NEW MEXICO, DO HEREBY CERTIFY THAT THE FOREGOING SUBDIVISION OF TRACT "B" AND REPLAT OF LOTS 7 AND 8 OF EVANSDALE, A SUBDIVISION IN THE CITY OF ALBUQUERQUE, NEW MEXICO, UPON WHICH THIS CERTIFICATE APPEARS, WAS APPROVED AND ACCEPTED FOR FILING BY THE CITY COMMISSION OF THE CITY OF ALBUQUERQUE, NEW MEXICO, AT ITS MEETING HELD ON August 13, 1963.

Ida V. Malone
CITY CLERK

INSPECTION REPORT

Form B-12

DATE

3-1-85

Address

3821 Aqualon Rd NW

Addition

Eveningdale

Lot

E

Block

Reissue of:

K-1

Portion of:

Owner

Virgilio, Gil

Phone No.

831-4181

Contractor

1, "

Phone No.

☒ New☐ Add.☐ Remodel☐ S.P.

Permit No.

34466

Foundation Ext.

3-1-85 PARTIAL MDY

Foundation Insulation

Foundation Int.

Frame

Lath

Frame Insulation

Wallboard

Final

VIRGIL GILL'S HOUSE

Contractor notified
NO THIS CARD 1987
JUNE

NO INSPECTIONS AT ALL ON HOUSE
ONLY FOOTING

(e) **Illumination.** No special lighting levels are required.

(f) **Hazards.** Hazardous utility lines such as steam, gas and oil shall not be located in or near the shelter unless provision is made to control such lines by valving or other approved means.

Exits

Sec. 5705. There shall be no fewer than two widely spaced exits from a fallout shelter, leading directly to other spaces of the building or outdoors. Exits from the fallout shelter shall aggregate at least one unit of egress width for every 200 shelter occupants. In no case shall a single exit be less than 24 inches wide.

Flame-spread Index of Interior Surfaces

Sec. 5706. Interior surfaces of single-purpose fallout shelters shall have a flame-spread index not exceeding 200.

Minimum Design Loads

Sec. 5707. (a) **Dual-use Fallout Shelters.** In the case of dual-use fallout shelters, design live load required for the normal use shall govern, except that concentrated loads shall be considered.

(b) **Single-purpose Fallout Shelters.** Minimum live loads for floor design in single-purpose fallout shelters shall be 40 pounds per square foot except that concentrated loads shall be considered.

Sanitation

Sec. 5708. Toilets, either flush-type operating from the normal water supply system, or chemical or other types, shall be provided on the basis of one toilet per 50 fallout shelter occupants. Fifty percent of the toilets may be provided outside the fallout shelter area. Empty water containers may be considered as fulfilling this requirement.

Chapter 70 EXCAVATION AND GRADING

Purpose

Sec. 7001. The purpose of this chapter is to safeguard life, limb, property and the public welfare by regulating grading on private property.

Scope

Sec. 7002. This chapter sets forth rules and regulations to control excavation, grading and earthwork construction, including fills and embankments; establishes the administrative procedure for issuance of permits; and provides for approval of plans and inspection of grading construction.

Permits Required

Sec. 7003. No person shall do any grading without first having obtained a grading permit from the building official except for the following:

1. Grading in an isolated, self-contained area if there is no danger apparent to private or public property.
2. An excavation below finished grade for basements and footings of a building, retaining wall or other structure authorized by a valid building permit. This shall not exempt any fill made with the material from such excavation nor exempt any excavation having an unsupported height greater than 5 feet after the completion of such structure.
3. Cemetery graves.
4. Refuse disposal sites controlled by other regulations.
5. Excavations for wells or tunnels or utilities.
6. Mining, quarrying, excavating, processing, stockpiling of rock, sand, gravel, aggregate or clay where established and provided for by law, provided such operations do not affect the lateral support or increase the stresses in or pressure upon any adjacent or contiguous property.
7. Exploratory excavations under the direction of soil engineers or engineering geologists.
8. An excavation which (a) is less than 2 feet in depth, or (b) which does not create a cut slope greater than 5 feet in height and steeper than one and one-half horizontal to one vertical.
9. A fill less than 1 foot in depth and placed on natural terrain with a slope flatter than five horizontal to one vertical, or less than 3 feet in depth, not intended to support structures, which does not exceed 50 cubic yards on any one lot and does not obstruct a drainage course.

Hazards

Sec. 7004. Whenever the building official determines that any existing excavation or embankment or fill on private property has become a hazard to life and limb, or endangers property, or adversely affects the safety, use or stability of a public way or drainage channel, the owner of the property upon which the excavation or fill is located, or other person or agent in control of said property,

upon receipt of notice in writing from the building official, shall within the period specified therein repair or eliminate such excavation or embankment so as to eliminate the hazard and be in conformance with the requirements of this code.

Definitions

Sec. 7005. For the purposes of this chapter the definitions listed hereunder, shall be construed as specified in this section.

APPROVAL shall mean the proposed work or completed work conforms to this chapter in the opinion of the building official.

AS-GRADED is the extent of surface conditions on completion of grading.

BEDROCK is in-place solid rock.

BENCH is a relatively level step excavated into earth material on which fill is to be placed.

BORROW is earth material acquired from an off-site location for use in grading on a site.

CIVIL ENGINEER is a professional engineer registered in the state to practice in the field of civil works.

CIVIL ENGINEERING is the application of the knowledge of the forces of nature, principles of mechanics and the properties of materials to the evaluation, design and construction of civil works for the beneficial uses of mankind.

COMPACTION is the densification of a fill by mechanical means.

EARTH MATERIAL is any rock, natural soil or fill and/or any combination thereof.

ENGINEERING GEOLOGIST is a geologist experienced and knowledgeable in engineering geology.

ENGINEERING GEOLOGY is the application of geologic knowledge and principles in the investigation and evaluation of naturally occurring rock and soil for use in the design of civil works.

EROSION is the wearing away of the ground surface as a result of the movement of wind, water and/or ice.

EXCAVATION is the mechanical removal of earth material.

FILL is a deposit of earth material placed by artificial means.

GEOTECHNICAL ENGINEER. See Soils Engineer.

GRADE is the vertical location of the ground surface.

Existing Grade is the grade prior to grading.

Rough Grade is the stage at which the grade approximately conforms to the approved plan.

Finish Grade is the final grade of the site which conforms to the approved plan.

GRADING is any excavating or filling or combination thereof.

KEY is a designed compacted fill placed in a trench excavated in earth material beneath the toe of a proposed fill slope.

SITE is any lot or parcel of land or contiguous combination thereof, under the same ownership, where grading is performed or permitted.

SLOPE is an inclined ground surface the inclination of which is expressed as a ratio of horizontal distance to vertical distance.

SOIL is naturally occurring superficial deposits overlying bed rock.

SOILS ENGINEER (GEOTECHNICAL ENGINEER) is an engineer experienced and knowledgeable in the practice of soils engineering (geotechnical) engineering.

SOILS ENGINEERING (GEOTECHNICAL ENGINEERING) is the application of the principles of soils mechanics in the investigation, evaluation and design of civil works involving the use of earth materials and the inspection and/or testing of the construction thereof.

TERRACE is a relatively level step constructed in the face of a graded slope surface for drainage and maintenance purposes.

Grading Permit Requirements

Sec. 7006. (a) Permits Required. Except as exempted in Section 7003 of this code, no person shall do any grading without first obtaining a grading permit from the building official. A separate permit shall be required for each site, and may cover both excavations and fills.

(b) Application. The provisions of Section 302 (a) are applicable to grading and in addition the application shall state the estimated quantities of work involved.

(c) Plans and Specifications. When required by the building official, each application for a grading permit shall be accompanied by two sets of plans and specifications, and supporting data consisting of a soils engineering report and engineering geology report. The plans and specifications shall be prepared and signed by a civil engineer when required by the building official.

(d) Information on Plans and in Specifications. Plans shall be drawn to scale upon substantial paper or cloth and shall be of sufficient clarity to indicate the nature and extent of the work proposed and show in detail that they will conform to the provisions of this code and all relevant laws, ordinances, rules and regulations. The first sheet of each set of plans shall give the location of the work and the name and address of the owner and the person by whom they were prepared.

The plans shall include the following information:

1. General vicinity of the proposed site.
2. Property limits and accurate contours of existing ground and details of terrain and area drainage.
3. Limiting dimensions, elevations or finish contours to be achieved by the grading, and proposed drainage channels and related construction.
4. Detailed plans of all surface and subsurface drainage devices, walls, cribbing, dams and other protective devices to be constructed with, or as a part of, the proposed work together with a map showing the drainage area and the estimated runoff of the area served by any drains.

5. Location of any buildings or structures on the property where the work is to be performed and the location of any buildings or structures on land of adjacent owners which are within 15 feet of the property or which may be affected by the proposed grading operations.

Specifications shall contain information covering construction and material requirements.

- (e) **Soils Engineering Report.** The soils engineering report required by Subsection (c) shall include data regarding the nature, distribution and strength of existing soils, conclusions and recommendations for grading procedures and design criteria for corrective measures, including buttress fills, when necessary, and opinions and recommendations covering adequacy of sites to be developed by the proposed grading, including the stability of slopes.

Recommendations included in the report and approved by the building official shall be incorporated in the grading plans or specifications.

- (f) **Engineering Geology Report.** The engineering geology report required by Subsection (c) shall include an adequate description of the geology of the site, conclusions and recommendations regarding the effect of geologic conditions on the proposed development, and opinions and recommendations covering the adequacy of sites to be developed by the proposed grading.

Recommendations included in the report and approved by the building official shall be incorporated in the grading plans or specifications.

- (g) **Issuance.** The provisions of Section 303 are applicable to grading permits. The building official may require that grading operations and project designs be modified if delays occur which incur weather-generated problems not considered at the time the permit was issued.

Grading Fees

Sec. 7007. (a) **General.** Fees shall be assessed in accordance with the provisions of this section or shall be as set forth in the fee schedule adopted by the jurisdiction.

- (b) **Plan Review Fees.** When a plan or other data are required to be submitted, a plan review fee shall be paid at the time of submitting plans and specifications for review. Said plan review fee shall be as set forth in Table No. 70-A. Separate plan review fees shall apply to retaining walls or major drainage structures as required elsewhere in this code. For excavation and fill on the same site, the fee shall be based on the volume of excavation or fill, whichever is greater.

- (c) **Grading Permit Fees.** A fee for each grading permit shall be paid to the building official as set forth in Table No. 70-B. Separate permits and fees shall apply to retaining walls or major drainage structures as required elsewhere in this code. There shall be no separate charge for standard terrace drains and similar facilities.

TABLE NO. 70-A—GRADING PLAN REVIEW FEES¹

50 cubic yards or less	No fee
51 to 100 cubic yards	\$15.00
101 to 1000 cubic yards	22.50
1001 to 10,000 cubic yards	30.00
10,001 to 100,000 cubic yards	\$30.00 for the first 10,000 cubic yards, plus \$15.00 for each additional 10,000 cubic yards or fraction thereof.
100,001 to 200,000 cubic yards	\$165.00 for the first 100,000 cubic yards, plus \$9.00 for each additional 10,000 cubic yards or fraction thereof.
200,001 cubic yards or more	\$255.00 for the first 200,000 cubic yards, plus \$4.50 for each additional 10,000 cubic yards or fraction thereof.

Other Fees:

Additional plan review required by changes, additions or revisions to approved plans: \$30.00 per hour* (minimum charge—one-half hour)

*Or the total hourly cost to the jurisdiction, whichever is the greatest. This cost shall include supervision, overhead, equipment, hourly wages and fringe benefits of the employees involved.

TABLE NO. 70-B—GRADING PERMIT FEES¹

50 cubic yards or less	\$15.00
51 to 100 cubic yards	22.50
101 to 1000 cubic yards	\$22.50 for the first 100 cubic yards plus \$10.50 for each additional 100 cubic yards or fraction thereof.
1001 to 10,000 cubic yards	\$117.00 for the first 1,000 cubic yards, plus \$9.00 for each additional 1,000 cubic yards or fraction thereof.
10,001 to 100,000 cubic yards	\$198.00 for the first 10,000 cubic yards, plus \$40.50 for each additional 10,000 cubic yards or fraction thereof.
100,001 cubic yards or more	\$562.50 for the first 100,000 cubic yards, plus \$22.50 for each additional 10,000 cubic yards or fraction thereof.

Other Inspections and Fees:

1. Inspections outside of normal business hours \$30.00 per hour² (minimum charge—two hours)
2. Reinspection fees assessed under provisions of Section 305 (g) \$30.00 per hour²
3. Inspections for which no fee is specifically indicated \$30.00 per hour² (minimum charge—one-half hour)

¹The fee for a grading permit authorizing additional work to that under a valid permit shall be the difference between the fee paid for the original permit and the fee shown for the entire project.

²Or the total hourly cost to the jurisdiction, whichever is the greatest. This cost shall include supervision, overhead, equipment, hourly wages and fringe benefits of the employees involved.

Bonds

Sec. 7008. The building official may require bonds in such form and amounts as may be deemed necessary to assure that the work, if not completed in accordance with the approved plans and specifications, will be corrected to eliminate hazardous conditions.

In lieu of a surety bond the applicant may file a cash bond or instrument of credit with the building official in an amount equal to that which would be required in the surety bond.

Cuts

Sec. 7009. (a) General. Unless otherwise recommended in the approved soils engineering and/or engineering geology report, cuts shall conform to the provisions of this section.

In the absence of an approved soils engineering report, these provisions may be waived for minor cuts not intended to support structures.

(b) Slope. The slope of cut surfaces shall be no steeper than is safe for the intended use and shall be no steeper than 2 horizontal to 1 vertical unless the owner furnishes a soils engineering or an engineering geology report, or both, stating that the site has been investigated and giving an opinion that a cut at a steeper slope will be stable and not create a hazard to public or private property.

(c) Drainage and Terracing. Drainage and terracing shall be provided as required by Section 7012.

Fills

Sec. 7010. (a) General. Unless otherwise recommended in the approved soils engineering report, fills shall conform to the provisions of this section.

In the absence of an approved soils engineering report these provisions may be waived for minor fills not intended to support structures:

(b) Fill Location. Fill slopes shall not be constructed on natural slopes steeper than two to one.

(c) Preparation of Ground. The ground surface shall be prepared to receive fill by removing vegetation, noncomplying fill, topsoil and other unsuitable materials scarifying to provide a bond with the new fill and, where slopes are steeper than five to one and the height is greater than 5 feet, by benching into sound bedrock or other competent material as determined by the soils engineer. The bench under the toe of a fill on a slope steeper than five to one shall be at least 10 feet wide. The area beyond the toe of fill shall be sloped for sheet overflow or a paved drain shall be provided. When fill is to be placed over a cut, the bench under the toe of fill shall be at least 10 feet wide but the cut shall be made before placing the fill and acceptance by the soils engineer or engineering geologist or both as a suitable foundation for fill.

(d) Fill Material. Detrimental amounts of organic material shall not be permitted in fills. Except as permitted by the building official, no rock or similar irreducible material with a maximum dimension greater than 12 inches shall be buried or placed in fills.

EXCEPTION: The building official may permit placement of larger rock when

the soils engineer properly devises a method of placement, continuously inspects its placement and approves the fill stability. The following conditions shall also apply:

A. Prior to issuance of the grading permit, potential rock disposal areas shall be delineated on the grading plan.

B. Rock sizes greater than 12 inches in maximum dimension shall be 10 feet or more below grade, measured vertically.

C. Rocks shall be placed so as to assure filling of all voids with fines.

(e) Compaction. All fills shall be compacted to a minimum of 90 percent of maximum density as determined by U.B.C. Standard No. 70-1. In-place density shall be determined in accordance with U.B.C. Standard No. 70-2, 70-3, 70-4 or 70-5.

(f) Slope. The slope of fill surfaces shall be no steeper than is safe for the intended use. Fill slopes shall be no steeper than two horizontal to one vertical.

(g) Drainage and Terracing. Drainage and terracing shall be provided and the area above fill slopes and the surfaces of terraces shall be graded and paved as required by Section 7012.

Setbacks

Sec. 7011. (a) General. Cut and fill slopes shall be set back from site boundaries in accordance with this section. Setback dimensions shall be horizontal distances measured perpendicular to the site boundary. Setback dimensions shall be as shown in Figure No. 70-1.

(b) Top of Cut Slope. The top of cut slopes shall be made not nearer to a site boundary line than one fifth of the vertical height of cut with a minimum of 2 feet and a maximum of 10 feet. The setback may need to be increased for any required interceptor drains.

(c) Toe of Fill Slope. The toe of fill slope shall be made not nearer to the site boundary line than one-half the height of the slope with a minimum of 2 feet and a maximum of 20 feet. Where a fill slope is to be located near the site boundary and the adjacent off-site property is developed, special precautions shall be incorporated in the work as the building official deems necessary to protect the adjoining property from damage as a result of such grading. These precautions may include but are not limited to:

1. Additional setbacks.
2. Provision for retaining or slough walls.
3. Mechanical or chemical treatment of the fill slope surface to minimize erosion.
4. Provisions for the control of surface waters.

(d) Modification of Slope Location. The building official may approve alternate setbacks. The building official may require an investigation and recommendation by a qualified engineer or engineering geologist to demonstrate that the intent of this section has been satisfied.

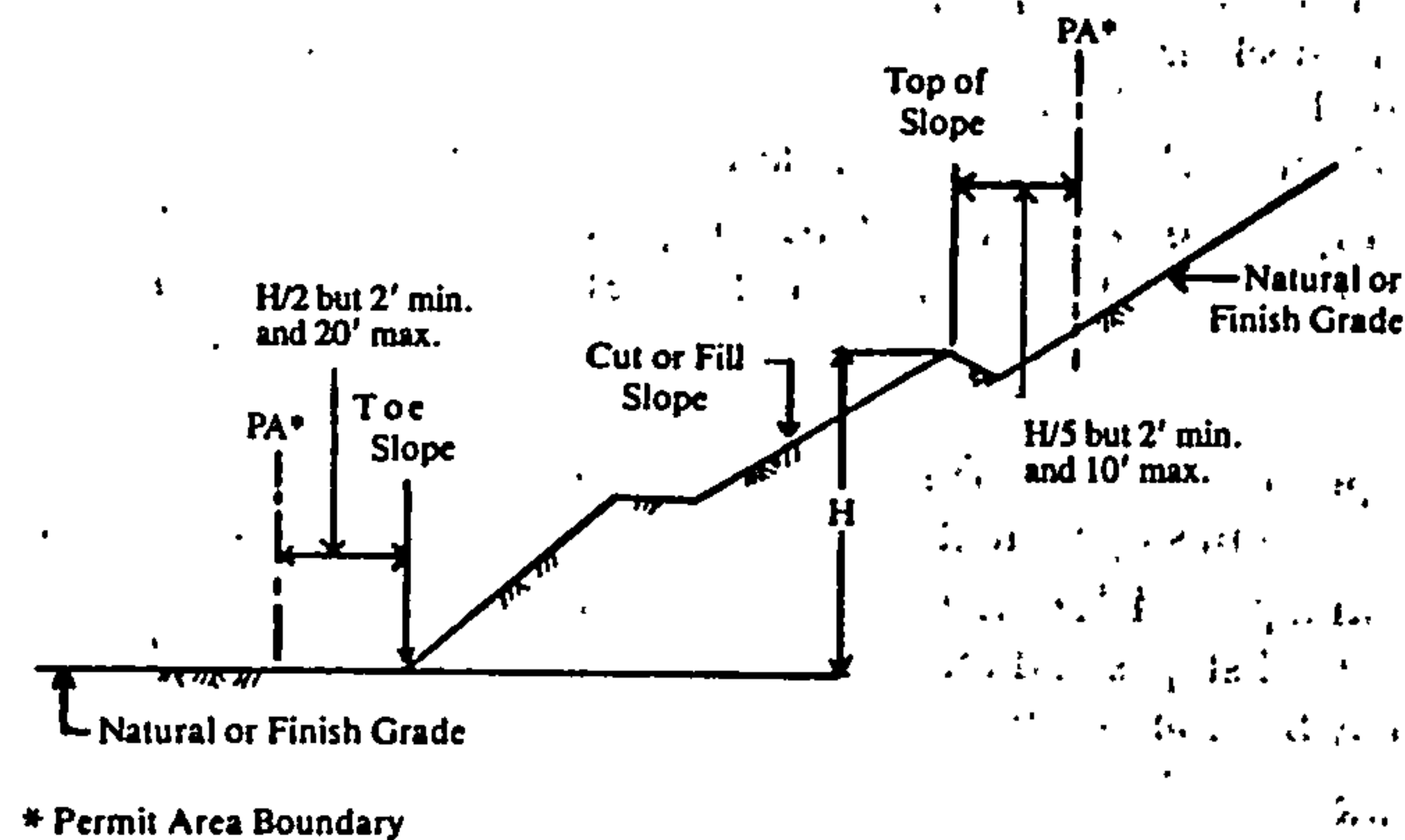


Figure No. 70-1

Drainage and Terracing

Sec. 7012. (a) General. Unless otherwise indicated on the approved grading plan, drainage facilities and terracing shall conform to the provisions of this section for cut or fill slopes steeper than 3 horizontal to 1 vertical.

(b) Terrace. Terraces at least 6 feet in width shall be established at not more than 30-foot vertical intervals on all cut or fill slopes to control surface drainage and debris except that where only one terrace is required, it shall be at midheight. For cut or fill slopes greater than 60 feet and up to 120 feet in vertical height, one terrace at approximately midheight shall be 12 feet in width. Terrace widths and spacing for cut and fill slopes greater than 120 feet in height shall be designed by the civil engineer and approved by the building official. Suitable access shall be provided to permit proper cleaning and maintenance.

Swales or ditches on terraces shall have a minimum gradient of 5 percent and must be paved with reinforced concrete not less than 3 inches in thickness or an approved equal paving. They shall have a minimum depth at the deepest point of 1 foot and a minimum paved width of 5 feet.

A single run of swale or ditch shall not collect runoff from a tributary area exceeding 13,500 square feet (projected) without discharging into a down drain.

(c) Subsurface Drainage. Cut and fill slopes shall be provided with subsurface drainage as necessary for stability.

(d) Disposal. All drainage facilities shall be designed to carry waters to the nearest practicable drainage way approved by the building official and/or other appropriate jurisdiction as a safe place to deposit such waters. Erosion of ground in the area of discharge shall be prevented by installation of nonerosive downdrains or other devices.

Building pads shall have a drainage gradient of 2 percent toward approved drainage facilities, unless waived by the building official.

EXCEPTION: The gradient from the building pad may be 1 percent if all of the following conditions exist throughout the permit area:

- A. No proposed fills are greater than 10 feet in maximum depth.
- B. No proposed finish cut or fill slope faces have a vertical height in excess of 10 feet.
- C. No existing slope faces, which have a slope face steeper than 10 horizontally to 1 vertically, have a vertical height in excess of 10 feet.

(e) Interceptor Drains. Paved interceptor drains shall be installed along the top of all cut slopes where the tributary drainage area above slopes towards the cut and has a drainage path greater than 40 feet measured horizontally. Interceptor drains shall be paved with a minimum of 3 inches of concrete or gunite and reinforced. They shall have a minimum depth of 12 inches and a minimum paved width of 30 inches measured horizontally across the drain. The slope of drain shall be approved by the building official.

Erosion Control

Sec. 7013. (a) Slopes. The faces of cut and fill slopes shall be prepared and maintained to control against erosion. This control may consist of effective planting. The protection for the slopes shall be installed as soon as practicable and prior to calling for final approval. Where cut slopes are not subject to erosion due to the erosion-resistant character of the materials, such protection may be omitted.

(b) Other Devices. Where necessary, check dams, cribbing, riprap or other devices or methods shall be employed to control erosion and provide safety.

Grading Inspection

Sec. 7014. (a) General. All grading operations for which a permit is required shall be subject to inspection by the building official. When required by the building official, special inspection of grading operations and special testing shall be performed in accordance with the provisions of Section 306 and Subsection 7014 (c).

(b) Grading Designation. All grading in excess of 5000 cubic yards shall be performed in accordance with the approved grading plan prepared by a civil engineer, and shall be designated as "engineered grading." Grading involving less than 5000 cubic yards shall be designated "regular grading" unless the

permittee, with the approval of the building official, chooses to have the grading performed as "engineered grading."

(c) **Engineered Grading Requirements.** For engineered grading, it shall be the responsibility of the civil engineer who prepares the approved grading plan to incorporate all recommendations from the soils engineering and engineering geology reports into the grading plan. He also shall be responsible for the professional inspection and approval of the grading within his area of technical specialty. This responsibility shall include, but need not be limited to, inspection and approval as to the establishment of line, grade and drainage of the development area. The civil engineer shall act as the coordinating agent in the event the need arises for liaison between the other professionals, the contractor and the building official. The civil engineer also shall be responsible for the preparation of revised plans and the submission of as-graded grading plans upon completion of the work. The grading contractor shall submit in a form prescribed by the building official a statement of compliance to said as-built plan.

Soils engineering and engineering geology reports shall be required as specified in Section 7006. During grading all necessary reports, compaction data and soil engineering and engineering geology recommendations shall be submitted to the civil engineer and the building official by the soils engineer and the engineering geologist.

The soils engineer's area of responsibility shall include, but need not be limited to, the professional inspection and approval concerning the preparation of ground to receive fills, testing for required compaction, stability of all finish slopes and the design of buttress fills, where required, incorporating data supplied by the engineering geologist.

The engineering geologist's area of responsibility shall include, but need not be limited to, professional inspection and approval of the adequacy of natural ground for receiving fills and the stability of cut slopes with respect to geological matters and the need for subdrains or other groundwater drainage devices. He shall report his findings to the soils engineer and the civil engineer for engineering analysis.

The building official shall inspect the project at the various stages of the work requiring approval to determine that adequate control is being exercised by the professional consultants.

(d) **Regular Grading Requirements.** The building official may require inspection and testing by an approved testing agency.

The testing agency's responsibility shall include, but need not be limited to, approval concerning the inspection of cleared areas and benches to receive fill, and the compaction of fills.

When the building official has cause to believe that geologic factors may be involved the grading operation will be required to conform to "engineered grading" requirements.

(e) **Notification of Noncompliance.** If, in the course of fulfilling his responsibility under this chapter, the civil engineer, the soils engineer, the engineering geologist or the testing agency finds that the work is not being done in conformance with this chapter or the approved grading plans, the discrepancies shall be

reported immediately in writing to the person in charge of the grading work and to the building official. Recommendations for corrective measures, if necessary, shall be submitted.

(f) **Transfer of Responsibility for Approval.** If the civil engineer, the soils engineer, the engineering geologist or the testing agency of record is changed during the course of the work, the work shall be stopped until the replacement has agreed to accept the responsibility within the area of his technical competence for approval upon completion of the work.

Completion of Work

Sec. 7015. (a) Final Reports. Upon completion of the rough grading work and at the final completion of the work the building official may require the following reports and drawings and supplements thereto:

1. An as-graded grading plan prepared by the civil engineer including original ground surface elevations, as-graded ground surface elevations, lot drainage patterns and locations and elevations of all surface and subsurface drainage facilities. He shall state that to the best of his knowledge the work was done in accordance with the final approved grading plan.
2. A soils-grading report prepared by the soils engineer, including locations and elevations of field density tests, summaries of field and laboratory tests and other substantiating data and comments on any changes made during grading and their effect on the recommendations made in the soils engineering investigation report. He shall render a finding as to the adequacy of the site for the intended use.
3. A geologic grading report prepared by the engineering geologist, including a final description of the geology of the site and any new information disclosed during the grading and the effect of same on recommendations incorporated in the approved grading plan. He shall render a finding as to the adequacy of the site for the intended use as affected by geologic factors.

(b) **Notification of Completion.** The permittee or his agent shall notify the building official when the grading operation is ready for final inspection. Final approval shall not be given until all work, including installation of all drainage facilities and their protective devices, and all erosion-control measures have been completed in accordance with the final approved grading plan and the required reports have been submitted.



- Difference in Elevation = 73 feet
- Removed the ^{historic} base of bank causing instability.
- Increase possibility of bank failure
- Danger to.
 - A. House at the bottom
 - B. Proposed structure at bottom
 - C. Public road on the top
 - D. third parties walking on upper portion
 - E. third parties on trail bikes, off road machines on upper portion
- Other factors which decrease safety factor
 - A. Saturation of bank from rainfall
 - B. surcharge - loading of road with trucks.
- Owner did not stop cutting when requested
May continue to excavate.
- Set precedence for other neighbors

② 3840 Evansdale Rd

Ⓐ Distance between Avalon Rd & Evansdale Rd
= 240 ft.

Elev. @ Avalon Rd = 5028

Elev. @ Evansdale Rd = 4955
73 ft.

$$\text{Slope} = \frac{73}{240} = 0.304$$

$$1 \text{ } \frac{\text{ } }{3.3} \text{ Average}$$

Ⓑ Worst Case at mid-height

$$\text{Slope} = \frac{50'}{90'} = 0.55$$

$$1 \text{ } \frac{\text{ } }{1.8}$$

Ⓒ Historic slope through the residence area

$$\text{Slope} = \frac{14'}{85'} = 0.16$$

$$1 \text{ } \frac{\text{ } }{6.1} \text{ Average}$$

	Average Slope	Worst Case Slope	historic Slope at residence area	Difference in elev. between streets	Distance between Streets		
301 53 rd	1:4.5	1:2.	1:9	144'	650'		
3840 Evansdale Rd	1:3.3	1:1.8	1:6.1	73'	240'		
3812 Evansdale Rd	1:6.1	1:2.5	1:17.1	33'	200'		



**WESTERN
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Albuquerque, New Mexico 87113
(505) 823-4488

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Ismael Perea
3840 Evansdale Place NW
Albuquerque, New Mexico 87105

May 9, 1988

Re: Slope Stability
3840 Evansdale Place NW
Albuquerque, New Mexico

Job No. 3228J023

As requested, we have performed additional analyses of the stability of the slope behind the residence at 3840 Evansdale Place NW, Albuquerque, New Mexico. This letter outlines the results of our analyses.

Using a topographic map of the area dated June 1972, a cross-section was developed for the slope as it appeared in 1972. A cross-section of the existing slope was developed based on both the topographic map and the measurements of the slope made in the field. As these cross-sections were being generated, some discrepancies were noted which may indicate that some filling has occurred at the top of the slope. The concrete rubble noted on the ground surface at the top of the slope would support that theory. It is also possible that the original topography was somewhat inaccurate due to the steepness of the slope and the method of obtaining the contours. It is our opinion that this does not have a strong effect on our overall findings.

Based on the cross-sections developed, the cutting of the toe of the slope has not changed the safety factor against failure of the slope. Placing a structure at the top of the slope does not substantially affect the safety factor for either case. Please refer to the attached figures for details.

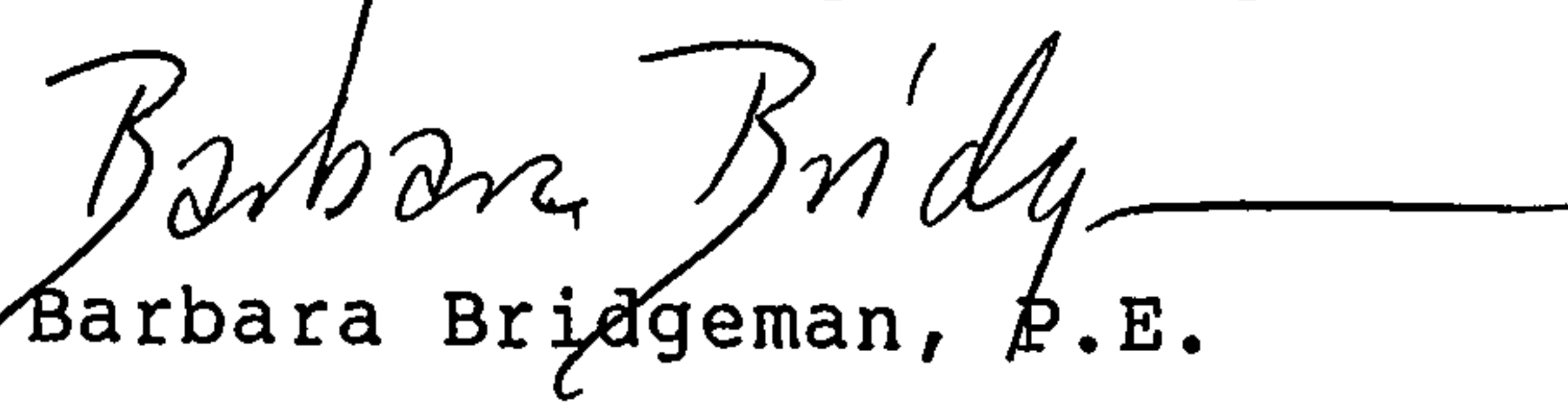
Job No. 3228J023

It is important that no further cutting of the toe nor filling of the top of the slope occur. The development of the land at the top of the slope would appear to be conditional with meeting lot size and setback restrictions. These would require checking with City of Albuquerque regulations.

Please call if you have any questions.

Sincerely,

WESTERN TECHNOLOGIES, INC.
Geotechnical Engineering Services


Barbara Bridgeman, P.E.

Copies to: Addressee (2)
City of Albuquerque (2)



SB-SLOPE

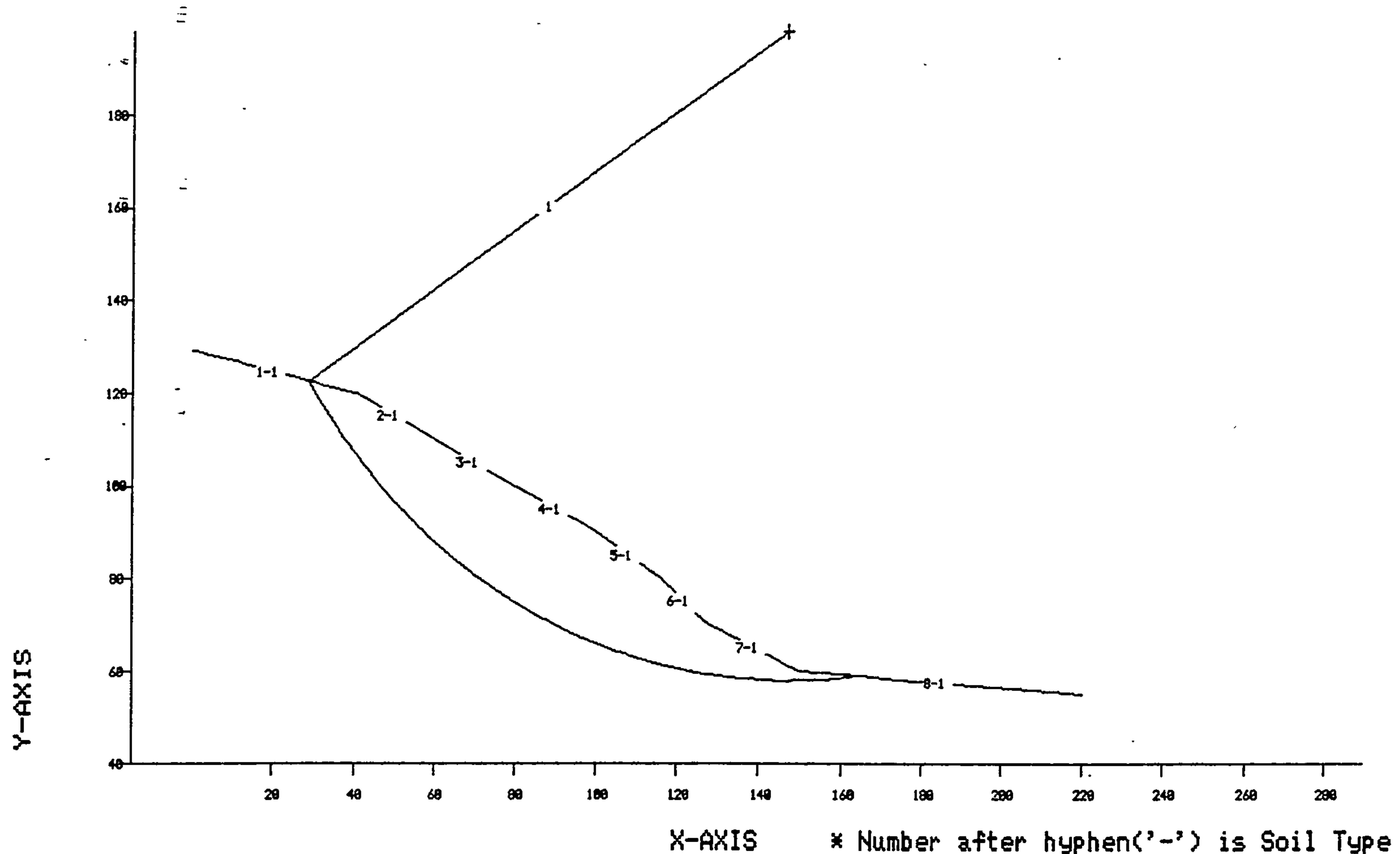
Simplified Bishop Slope Stability Analysis

PROJECT: Perea Slope
LOCATION: Albuquerque
FILE: a:FSL.5DT
COMPLETE SLOPE CROSS SECTION

SOIL*	DENSITY	COHESION	PHI
1	125.0	200.0	28.0

CIRCLE	X	Y	RADIUS	FS
1	146.7	197.9	140.0	1.43

ORIGINAL SLOPE



SB-SLOPE

Simplified Bishop Slope Stability Analysis

PROJECT: Perea Slope

LOCATION: Albuquerque

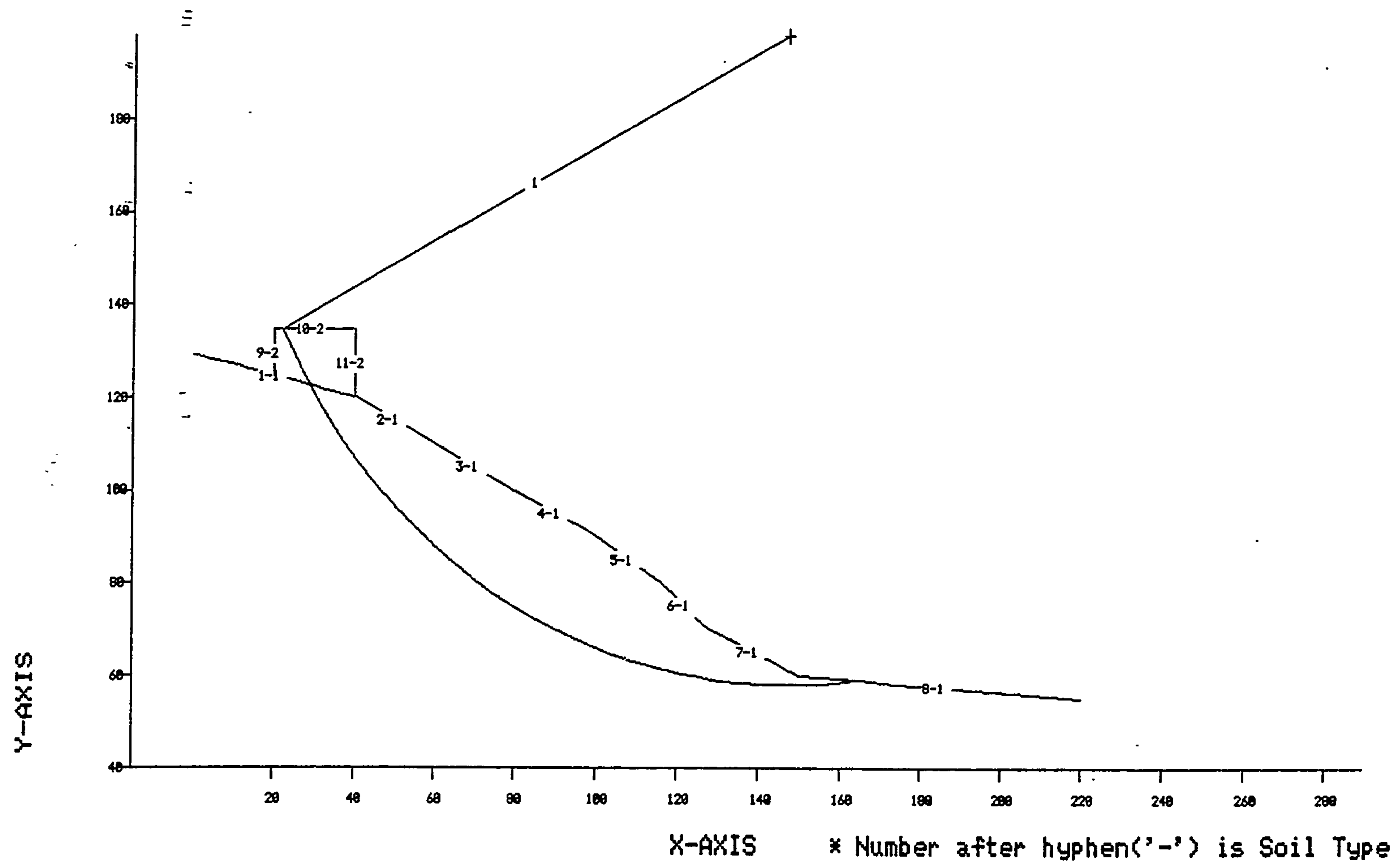
FILE: a:FSL.5DT

COMPLETE SLOPE CROSS SECTION

SOIL*	DENSITY	COHESION	PHI
1	125.0	200.0	28.0
2	4.0	0.0	0.0

CIRCLE	X	Y	RADIUS	FS
1	146.7	197.9	140.0	1.42

ORIGINAL SLOPE WITH HOUSE



Western Technologies Inc. -

SB-SLOPE

Simplified Bishop Slope Stability Analysis

PROJECT: Perea slope

LOCATION: west side

FILE: a:FSL.5DT

COMPLETE SLOPE CROSS SECTION

SOIL*

DENSITY

COHESION

PHI

1

125.0

200.0

28.0

CIRCLE

X

Y

RADIUS

FS

1

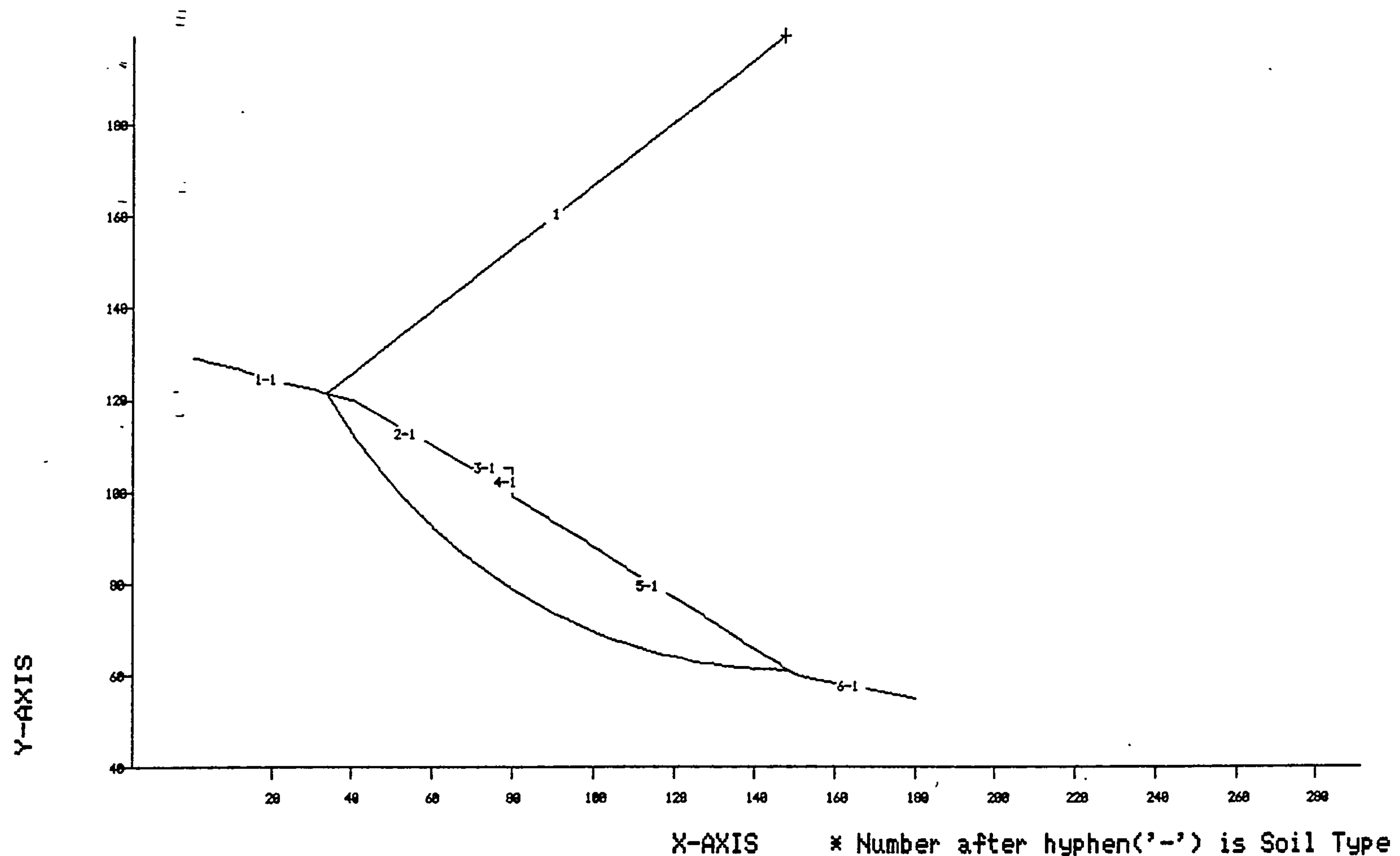
147.5

198.9

137.8

1.41

EXISTING SLOPE



Western Technologies Inc.

SB-SLOPE

Simplified Bishop Slope Stability Analysis

PROJECT: Perea slope

LOCATION: west side

FILE: a:FSL.5DT

COMPLETE SLOPE CROSS SECTION

SOIL*	DENSITY	COHESION	PHI
1	125.0	200.0	28.0
2	4.0	0.0	0.0

CIRCLE	X	Y	RADIUS	FS
1	150.0	198.0	140.6	1.42

EXISTING SLOPE WITH HOUSE

